

L Number	Hits	Search Text	DB	Time stamp
1	4395	metathesis	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/02 07:08
2	580662	ruthenium or Ru	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/02 07:08
3	987	metathesis and (ruthenium or Ru)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/02 08:58
7	4275590	Osmium or Os	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/02 07:08
8	4468270	(ruthenium or Ru) or (Osmium or Os)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/02 07:09
10	34	trisubstituted adj alkene	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/02 07:09
11	233	trisubstituted adj olefin	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/02 07:09
12	256	((trisubstituted adj alkene) or (trisubstituted adj olefin))	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/02 07:09
4	3	9951344.pn.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/02 07:09
5	3	"9951344"	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/02 07:09
6	2	6316380.pn.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/02 07:09
9	2	6316380.pn.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/02 07:09
13	11	((trisubstituted adj alkene) or (trisubstituted adj olefin)) and (metathesis and (ruthenium or Ru))	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/02 07:09
14	2	6348551.pn.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/02 07:09
15	144	cross adj metathesis	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/02 07:26
16	99	(ruthenium or Ru) and (cross adj metathesis)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/02 07:26
17	71214	imidaz\$	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/02 07:27

18	17	((ruthenium or Ru) and (cross adj metathesis)) and imidaz\$	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/02 07:31
19	239999	styrene	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/02 07:31
20	33	((ruthenium or Ru) and (cross adj metathesis)) and styrene	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/02 07:31
21	25	((ruthenium or Ru) and (cross adj metathesis)) and styrene) not ((ruthenium or Ru) and (cross adj metathesis)) and imidaz\$)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/02 07:32
22	2	5936100.pn.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/02 09:17
23	2	5936100.URPN.	USPAT	2003/01/02 08:59
24	115	585/365.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/02 09:27
25	114	585/366.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/02 09:18
26	77	585/364.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/02 09:21
27	185	585/643.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/02 09:31
28	717	560/205.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/02 09:31
29	153	560/225.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/02 09:33
30	443	564/159.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/02 09:35
31	524	562/598.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/02 09:35
32	2197	585/365.ccls. or 585/366.ccls. or 585/364.ccls. or 585/643.ccls. or 560/205.ccls. or 560/225.ccls. or 564/159.ccls. or 562/598.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/02 09:36
33	16	(cross adj metathesis) and (585/365.ccls. or 585/366.ccls. or 585/364.ccls. or 585/643.ccls. or 560/205.ccls. or 560/225.ccls. or 564/159.ccls. or 562/598.ccls.)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/02 09:36

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition
1	BRS	L1	4395	metathesis	USPAT ; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 07:08		
2	BRS	L2	58066 2	ruthenium or Ru	USPAT ; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 07:08		
3	BRS	L3	987	metathesis and (ruthenium or Ru)	USPAT ; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 08:58		
4	BRS	L7	42755 90	Osmium or Os	USPAT ; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 07:08		
5	BRS	L8	44682 70	(ruthenium or Ru) or (Osmium or Os)	USPAT ; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 07:09		
6	BRS	L10	34	trisubstituted adj alkene	USPAT ; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 07:09		
7	BRS	L11	233	trisubstituted adj olefin	USPAT ; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 07:09		

	Err ors
1	0
2	0
3	0
4	0
5	0
6	0
7	0

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition
8	BRS	L12	256	(trisubstituted adj alkene) or (trisubstituted adj olefin)	USPAT ; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 07:09		
9	BRS	L4	3	9951344.pn.	USPAT ; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 07:09		
10	BRS	L5	3	"9951344"	USPAT ; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 07:09		
11	BRS	L6	2	6316380.pn.	USPAT ; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 07:09		
12	BRS	L9	2	6316380.pn.	USPAT ; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 07:09		
13	BRS	L13	11	((trisubstituted adj alkene) or (trisubstituted adj olefin)) and (metathesis and (ruthenium or Ru))	USPAT ; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 07:09		
14	BRS	L14	2	6348551.pn.	USPAT ; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 07:09		

	Err ors
8	0
9	0
10	0
11	0
12	0
13	0
14	0

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition
15	BRS	L15	144	cross adj metathesis	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 07:26		
16	BRS	L16	99	12 and 115	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 07:26		
17	BRS	L17	71214	imidaz\$	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 07:27		Truncation overflow.
18	BRS	L18	17	116 and 117	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 07:31		
19	BRS	L19	23999 9	styrene	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 07:31		
20	BRS	L20	33	116 and 119	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 07:31		
21	BRS	L21	25	120 not 118	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 07:32		

	Err ors
15	0
16	0
17	1
18	0
19	0
20	0
21	0

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition
22	BRS	L22	2	5936100.pn.	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 09:17		
23	BRS	L23	2	5936100.URPN.	USPAT	2003/01/02 08:59		
24	BRS	L24	115	585/365.ccls.	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 09:27		
25	BRS	L25	114	585/366.ccls.	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 09:18		
26	BRS	L26	77	585/364.ccls.	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 09:21		
27	BRS	L27	185	585/643.ccls.	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 09:31		
28	BRS	L28	717	560/205.ccls.	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 09:31		
29	BRS	L29	153	560/225.ccls.	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 09:33		

	Err ors
22	0
23	0
24	0
25	0
26	0
27	0
28	0
29	0

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition
30	BRS	L30	443	564/159.ccls.	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 09:35		
31	BRS	L31	524	562/598.ccls.	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 09:35		
32	BRS	L32	2197	124 or 125 or 126 or 127 or 128 or 129 or 130 or 131	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 09:36		
33	BRS	L33	16	115 and 132	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 09:36		

	Err ors
30	0
31	0
32	0
33	0

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:ssspal623paz

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * Welcome to STN International * * * * *

NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2	Apr 08	"Ask CAS" for self-help around the clock
NEWS	3	Apr 09	BEILSTEIN: Reload and Implementation of a New Subject Area
NEWS	4	Apr 09	ZDB will be removed from STN
NEWS	5	Apr 19	US Patent Applications available in IFICDB, IFIPAT, and
IFIUDB			
NEWS	6	Apr 22	Records from IP.com available in CAPLUS, HCAPLUS, and
ZCAPLUS			
NEWS	7	Apr 22	BIOSIS Gene Names now available in TOXCENTER
NEWS	8	Apr 22	Federal Research in Progress (FEDRIP) now available
NEWS	9	Jun 03	New e-mail delivery for search results now available
NEWS	10	Jun 10	MEDLINE Reload
NEWS	11	Jun 10	PCTFULL has been reloaded
NEWS	12	Jul 02	FOREGE no longer contains STANDARDS file segment
NEWS	13	Jul 22	USAN to be reloaded July 28, 2002; saved answer sets no longer valid
NEWS	14	Jul 29	Enhanced polymer searching in REGISTRY
NEWS	15	Jul 30	NETFIRST to be removed from STN
NEWS	16	Aug 08	CANCERLIT reload
NEWS	17	Aug 08	PHARMAMarketLetter(PHARMAML) - new on STN
NEWS	18	Aug 08	NTIS has been reloaded and enhanced
NEWS	19	Aug 19	Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN
NEWS	20	Aug 19	IFIPAT, IFICDB, and IFIUDB have been reloaded
NEWS	21	Aug 19	The MEDLINE file segment of TOXCENTER has been reloaded
NEWS	22	Aug 26	Sequence searching in REGISTRY enhanced
NEWS	23	Sep 03	JAPIO has been reloaded and enhanced
NEWS	24	Sep 16	Experimental properties added to the REGISTRY file
NEWS	25	Sep 16	Indexing added to some pre-1967 records in CA/CAPLUS
NEWS	26	Sep 16	CA Section Thesaurus available in CAPLUS and CA
NEWS	27	Oct 01	CASREACT Enriched with Reactions from 1907 to 1985
NEWS	28	Oct 21	EVENTLINE has been reloaded
NEWS	29	Oct 24	BEILSTEIN adds new search fields
NEWS	30	Oct 24	Nutraceuticals International (NUTRACEUT) now available on
STN			
NEWS	31	Oct 25	MEDLINE SDI run of October 8, 2002
NEWS	32	Nov 18	DKILIT has been renamed APOLLIT
NEWS	33	Nov 25	More calculated properties added to REGISTRY
NEWS	34	Dec 02	TIBKAT will be removed from STN
NEWS	35	Dec 04	CSA files on STN
NEWS	36	Dec 17	PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS	37	Dec 17	TOXCENTER enhanced with additional content
NEWS	38	Dec 17	Adis Clinical Trials Insight now available on STN

NEWS EXPRESS October 14 CURRENT WINDOWS VERSION IS V6.01,
 CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),
 AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002
 NEWS HOURS STN Operating Hours Plus Help Desk Availability
 NEWS INTER General Internet Information
 NEWS LOGIN Welcome Banner and News Items
 NEWS PHONE Direct Dial and Telecommunication Network Access to STN
 NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 08:01:52 ON 30 DEC 2002

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'CAPLUS' ENTERED AT 08:02:03 ON 30 DEC 2002

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FILE COVERS 1907 - 30 Dec 2002 VOL 138 ISS 1
 FILE LAST UPDATED: 29 Dec 2002 (20021229/ED)

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=> Ruthenium or Ru

69421 RUTHENIUM
 20 RUTHENIUMS
 69421 RUTHENIUM
 (RUTHENIUM OR RUTHENIUMS)
 54409 RU
 168 RUS
 54555 RU
 (RU OR RUS)
 L1 86501 RUTHENIUM OR RU

 => Osmium or Os
 19678 OSMIUM
 5 OSMIUMS
 19679 OSMIUM
 (OSMIUM OR OSMIUMS)
 23390 OS
 69 OSES
 248 ORA
 17 ORAS
 12 OSAR
 75 OSSA
 23801 OS
 (OS OR OSES OR ORA OR ORAS OR OSAR OR OSSA)
 L2 33821 OSMIUM OR OS

 => l1 or l2
 L3 109558 L1 OR L2

=> logoff hold		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	6.91	7.12

SESSION WILL BE HELD FOR 60 MINUTES
 STN INTERNATIONAL SESSION SUSPENDED AT 08:02:37 ON 30 DEC 2002

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:sssptal623paz

PASSWORD:

* * * * * RECONNECTED TO STN INTERNATIONAL * * * * *
 SESSION RESUMED IN FILE 'CAPLUS' AT 08:23:49 ON 30 DEC 2002
 FILE 'CAPLUS' ENTERED AT 08:23:49 ON 30 DEC 2002
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COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	6.91	7.12

=> file caplus		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	6.91	7.12

FILE 'CAPLUS' ENTERED AT 08:23:58 ON 30 DEC 2002
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=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.40	7.52

FILE 'REGISTRY' ENTERED AT 08:24:04 ON 30 DEC 2002
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 29 DEC 2002 HIGHEST RN 477761-07-2
DICTIONARY FILE UPDATES: 29 DEC 2002 HIGHEST RN 477761-07-2

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNnote 27, Searching Properties in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=>

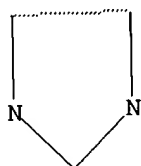
Uploading 09891144 ligand.str

L4 STRUCTURE UPLOADED

=> d 14

L4 HAS NO ANSWERS

L4 STR



Structure attributes must be viewed using STN Express query preparation.

=> search 14 sss full

FULL SEARCH INITIATED 08:24:29 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - >1,000,000 TO ITERATE

< 40.0% PROCESSED 400000 ITERATIONS

172349 ANSWERS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.07

FULL FILE PROJECTIONS: ONLINE **INCOMPLETE**
 BATCH **INCOMPLETE**

PROJECTED ITERATIONS: EXCEEDS 1000000

PROJECTED ANSWERS: EXCEEDS 540953

L5 172349 SEA SSS FUL L4

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE TOTAL

ENTRY SESSION

FULL ESTIMATED COST

140.28 147.80

FILE 'CAPLUS' ENTERED AT 08:24:49 ON 30 DEC 2002

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=> 15

L6 19361 L5

=> d his

(FILE 'HOME' ENTERED AT 08:01:52 ON 30 DEC 2002)

FILE 'CAPLUS' ENTERED AT 08:02:03 ON 30 DEC 2002

L1 86501 RUTHENIUM OR RU

L2 33821 OSMIUM OR OS

L3 109558 L1 OR L2

FILE 'CAPLUS' ENTERED AT 08:23:58 ON 30 DEC 2002

FILE 'REGISTRY' ENTERED AT 08:24:04 ON 30 DEC 2002

L4 STRUCTURE UPLOADED

L5 172349 SEARCH L4 SSS FULL

FILE 'CAPLUS' ENTERED AT 08:24:49 ON 30 DEC 2002

L6 19361 L5

=> metathesis

10376 METATHESIS

155 METATHESES

L7 10423 METATHESIS

(METATHESIS OR METATHESES)

=> 13 and 17

L8 1522 L3 AND L7

=> 18 and 16

L9 187 L8 AND L6

=> d 19 177-187 ti

L9 ANSWER 177 OF 187 CAPLUS COPYRIGHT 2002 ACS

TI Alkylidene complexes of **ruthenium** with N-heterocyclic carbene ligands and their application as highly active, selective catalysts for olefin **metathesis**

L9 ANSWER 178 OF 187 CAPLUS COPYRIGHT 2002 ACS

TI N-Heterocyclic carbenes: application of **ruthenium**-alkylidene complexes in ring-opening **metathesis** polymerization

L9 ANSWER 179 OF 187 CAPLUS COPYRIGHT 2002 ACS

TI Highly active **ruthenium** catalysts for olefin **metathesis**: the synergy of N-Heterocyclic carbenes and coordinatively labile ligands

L9 ANSWER 180 OF 187 CAPLUS COPYRIGHT 2002 ACS

TI **Ruthenium** Carbene-Based Olefin **Metathesis** Initiators: Catalyst Decomposition and Longevity

L9 ANSWER 181 OF 187 CAPLUS COPYRIGHT 2002 ACS

TI Synthesis and Activity of a New Generation of **Ruthenium**-Based
Olefin **Metathesis** Catalysts Coordinated with
1,3-Dimesityl-4,5-dihydroimidazol-2-ylidene Ligands

L9 ANSWER 182 OF 187 CAPLUS COPYRIGHT 2002 ACS
TI (p-cymene)RuLCl2 (L = 1,3-Bis(2,4,6-trimethylphenyl)imidazol-2-ylidene
and 1,3-Bis(2,6-diisopropylphenyl)imidazol-2-ylidene) and Related Complexes
as Ring Closing **Metathesis** Catalysts

L9 ANSWER 183 OF 187 CAPLUS COPYRIGHT 2002 ACS
TI **Ruthenium** carbene complexes with imidazolin-2-ylidene ligands
allow the formation of tetrasubstituted cycloalkenes by ring-closing
metathesis (RCM)

L9 ANSWER 184 OF 187 CAPLUS COPYRIGHT 2002 ACS
TI N-heterocyclic carbenes: novel **ruthenium**-alkylidene complexes

L9 ANSWER 185 OF 187 CAPLUS COPYRIGHT 2002 ACS
TI Ring opening **metathesis** polymerization using new
ruthenium alkylidene complexes with N-heterocyclic carbene ligands

L9 ANSWER 186 OF 187 CAPLUS COPYRIGHT 2002 ACS
TI Increased ring closing **metathesis** activity of **ruthenium**
-based olefin **metathesis** catalysts coordinated with
imidazolin-2-ylidene ligands

L9 ANSWER 187 OF 187 CAPLUS COPYRIGHT 2002 ACS
TI Olefin **Metathesis**-Active **Ruthenium** Complexes Bearing a
Nucleophilic Carbene Ligand

=> d l9 d l9 177-187 ti fbib abs
L9 IS NOT VALID HERE
For an explanation, enter "HELP DISPLAY".

=> d l9 177-187 ti fbib abs

L9 ANSWER 177 OF 187 CAPLUS COPYRIGHT 2002 ACS
TI Alkylidene complexes of **ruthenium** with N-heterocyclic carbene
ligands and their application as highly active, selective catalysts for
olefin **metathesis**

AN 1999:659673 CAPLUS
DN 131:257700

TI Alkylidene complexes of **ruthenium** with N-heterocyclic carbene
ligands and their application as highly active, selective catalysts for
olefin **metathesis**

IN Herrmann, Wolfgang Anton; Schattenmann, Wolfgang; Weskamp, Thomas
PA Aventis Research und Technologies G.m.b.H. und Co. K.-G., Germany
SO Ger. Offen., 12 pp.
CODEN: GWXXBX

DT Patent
LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19815275	A1	19991007	DE 1998-19815275	19980406
	WO 9951344	A1	19991014	WO 1999-EP1785	19990318

W: IL, JP, US

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
PT, SE

EP 1087838 A1 20010404 DE 1998-19815275A 19980406
R: CH, DE, FR, GB, LI, NL EP 1999-910357 19990318

DE 1998-19815275A 19980406

WO 1999-EP1785 W 19990318

OS MARPAT 131:257700

AB Six title compds. were prep'd. in 42-89% yields and used as catalysts for polymn. and **metathesis** of olefins. E.g., (Ph₃P)₂Cl₂Ru:CHPh and 1,3-diisopropylimidazolin-2-ylidene gave 86% benzylidenedichlorobis(1,3-diisopropylimidazolin-2-ylidene)**ruthenium**, which, used as catalyst in ring-opening **metathesis**-polymn. (ROMP) of cyclooctene, gave 97% of product.

L9 ANSWER 178 OF 187 CAPLUS COPYRIGHT 2002 ACS

TI N-Heterocyclic carbenes: application of **ruthenium**-alkylidene complexes in ring-opening **metathesis** polymerization

AN 1999:568806 CAPLUS

DN 131:337390

TI N-Heterocyclic carbenes: application of **ruthenium**-alkylidene complexes in ring-opening **metathesis** polymerization

AU Frenzel, U.; Weskamp, T.; Kohl, F. J.; Schattenmann, W. C.; Nuyken, O.; Herrmann, W. A.

CS Lehrstuhl für Makromolekulare Stoffe, Technische Universität München, Garching bei München, D-85747, Germany

SO Journal of Organometallic Chemistry (1999), 586(2), 263-265

CODEN: JORCAI; ISSN: 0022-328X

PB Elsevier Science S.A.

DT Journal

LA English

AB Novel **ruthenium**-alkylidene catalysts bearing N-heterocyclic carbenes were applied in ring-opening **metathesis** polymn. (ROMP) reactions of various norbornene derivs. High tolerance towards polar functional groups as well as high catalytic activity is demonstrated.

The

combination of N-heterocyclic carbenes and coordinatively labile ligands (phosphanes or chloro-bridged transition metals) on the **ruthenium** center proves not only successful regarding catalytic performance but

also

promising with respect to polymer properties.

RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 179 OF 187 CAPLUS COPYRIGHT 2002 ACS

TI Highly active **ruthenium** catalysts for olefin **metathesis**
: the synergy of N-Heterocyclic carbenes and coordinatively labile ligands

AN 1999:560809 CAPLUS

DN 131:299544

TI Highly active **ruthenium** catalysts for olefin **metathesis**
: the synergy of N-Heterocyclic carbenes and coordinatively labile ligands

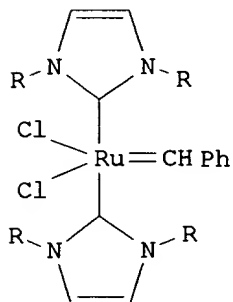
AU Weskamp, Thomas; Kohl, Florian J.; Hieringer, Wolfgang; Gleich, Dieter; Herrmann, Wolfgang A.

CS Anorganisch-chemisches Institut der Technischen Universität München, Garching, D-85747, Germany

SO Angewandte Chemie, International Edition (1999), 38(16), 2416-2419

CODEN: ACIEF5; ISSN: 1433-7851

PB Wiley-VCH Verlag GmbH
DT Journal
LA English
GI



I

AB The synergy of N-heterocyclic carbenes (NHCs) and coordinatively labile ligands allows for the synthesis of catalysts, e.g. I (R = iPr, cyclohexyl), for olefin **metathesis** that combine high catalytic activity with excellent stability even against air and moisture. This concept also proves successful in catalytic processes other than **metathesis**, such as palladium-catalyzed coupling reactions. Thus, reaction of Cl₂Ru(PCy₃)₂:CHPh with 1,3-dialkylimidazolin-2-ylidene in THF gave title complexes I. ROMP of 1,5-cyclooctadiene catalyzed with I and related compds. was discussed.

RE.CNT 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 180 OF 187 CAPLUS COPYRIGHT 2002 ACS

TI **Ruthenium** Carbene-Based Olefin **Metathesis** Initiators:
Catalyst Decomposition and Longevity

AN 1999:552169 CAPLUS

DN 131:299542

TI **Ruthenium** Carbene-Based Olefin **Metathesis** Initiators:
Catalyst Decomposition and Longevity

AU Ulman, Michael; Grubbs, Robert H.

CS Arnold and Mabel Beckman Laboratory of Chemical Synthesis Division of
Chemistry and Chemical Engineering, California Institute of Technology,
Pasadena, CA, 91125, USA

SO Journal of Organic Chemistry (1999), 64(19), 7202-7207
CODEN: JOCEAH; ISSN: 0022-3263

PB American Chemical Society

DT Journal

LA English

AB Thermolytic decompn. pathways were studied for several **Ru** carbene-based olefin **metathesis** catalysts. Substituted carbenes decomp. through bimol. pathways while the unsubstituted carbene was found to decompd. unimolecularly. Implications for ring-closing **metathesis** are discussed, and the longevity of several **Ru**-based catalysts are compared.

RE.CNT 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 181 OF 187 CAPLUS COPYRIGHT 2002 ACS
 TI Synthesis and Activity of a New Generation of **Ruthenium**-Based
 Olefin **Metathesis** Catalysts Coordinated with
 1,3-Dimesityl-4,5-dihydroimidazol-2-ylidene Ligands
 AN 1999:505335 CAPLUS
 DN 131:285987
 TI Synthesis and Activity of a New Generation of **Ruthenium**-Based
 Olefin **Metathesis** Catalysts Coordinated with
 1,3-Dimesityl-4,5-dihydroimidazol-2-ylidene Ligands
 AU Scholl, Matthias; Ding, Sheng; Lee, Choon Woo; Grubbs, Robert H.
 CS Arnold and Mabel Beckman Laboratory of Chemical Synthesis Division of
 Chemistry and Chemical Engineering, California Institute of Technology,
 Pasadena, CA, 91125, USA
 SO Organic Letters (1999), 1(6), 953-956
 CODEN: ORLEF7; ISSN: 1523-7060
 PB American Chemical Society
 DT Journal
 LA English
 AB A new family of 1,3-dimesityl-4,5-dihydroimidazol-2-ylidene-substituted
ruthenium-based complexes has been prep'd. starting from
 RuCl₂(:CHPh)(PCy₃)₂. These air- and water-tolerant complexes were shown
 to exhibit an increased ring-closing **metathesis** activity at
 elevated temp. when compared to that of the parent complex and a
 previously developed complex. In many instances the activity of these
 complexes also rivaled or exceeded that of an alkoxy-imido molybdenum
 complex. Catalyst loadings of as low as 0.05 mol % could be used.
 RE.CNT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

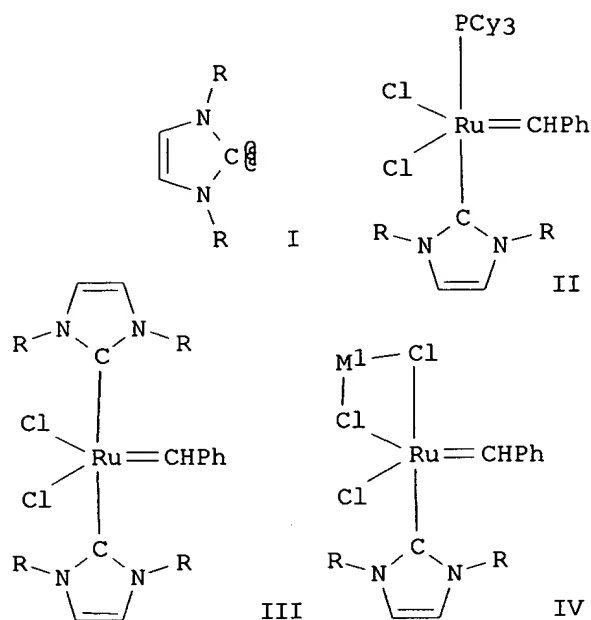
L9 ANSWER 182 OF 187 CAPLUS COPYRIGHT 2002 ACS
 TI (p-cymene)RuLCl₂ (L = 1,3-Bis(2,4,6-trimethylphenyl)imidazol-2-ylidene
 and
 1,3-Bis(2,6-diisopropylphenyl)imidazol-2-ylidene) and Related Complexes
 as
 Ring Closing **Metathesis** Catalysts
 AN 1999:488338 CAPLUS
 DN 131:243391
 TI (p-cymene)RuLCl₂ (L = 1,3-Bis(2,4,6-trimethylphenyl)imidazol-2-ylidene
 and
 1,3-Bis(2,6-diisopropylphenyl)imidazol-2-ylidene) and Related Complexes
 as
 Ring Closing **Metathesis** Catalysts
 AU Jafarpour, Laleh; Huang, Jinkun; Stevens, Edwin D.; Nolan, Steven P.
 CS Department of Chemistry, University of New Orleans, New Orleans, LA,
 70148, USA
 SO Organometallics (1999), 18(18), 3760-3763
 CODEN: ORGND7; ISSN: 0276-7333
 PB American Chemical Society
 DT Journal
 LA English
 OS CASREACT 131:243391
 AB Complexes of (.eta.⁶-arene)**ruthenium** bearing the carbene ligand
 1,3-bis(2,4,6-trimethylphenyl)imidazol-2-ylidene (IMes) and
 1,3-bis(2,6-diisopropylphenyl)imidazol-2-ylidene (IPr) **Ru**
 (IMes)(Cl)₂(.eta.⁶-arene), **Ru**(IPr)(Cl)₂(.eta.⁶-arene), and [
Ru:C:C:CPh₂(IMes)(Cl)(.eta.⁶-arene)]PF₆ were prep'd. and efficient
 catalyst precursors for ring closing olefin **metathesis**. The
 crystal structure of [(p-cymene)RuCl(IMes)(:C:C:CPh₂)]PF₆ was det'd.

RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 183 OF 187 CAPLUS COPYRIGHT 2002 ACS
TI **Ruthenium** carbene complexes with imidazolin-2-ylidene ligands
allow the formation of tetrasubstituted cycloalkenes by ring-closing
metathesis (RCM)
AN 1999:429173 CAPLUS
DN 131:242770
TI **Ruthenium** carbene complexes with imidazolin-2-ylidene ligands
allow the formation of tetrasubstituted cycloalkenes by ring-closing
metathesis (RCM)
AU Ackermann, Lutz; Furstner, Alois; Weskamp, Thomas; Kohl, Florian J.;
Herrmann, Wolfgang A.
CS Max-Planck-Institut fur Kohlenforschung, Mulheim/Ruhr, D-45470, Germany
SO Tetrahedron Letters (1999), 40(26), 4787-4790
CODEN: TELEAY; ISSN: 0040-4039
PB Elsevier Science Ltd.
DT Journal
LA English
OS CASREACT 131:242770
AB Chem. quite robust **ruthenium** carbene complexes bearing one or
two imidazolin-2-ylidene ligands are highly active catalysts for all
types
of ring-closing **metathesis** (RCM) reactions. Importantly, they
even allow the formation of tetrasubstituted alkenes that were previously
out of reach with **ruthenium**-based **metathesis**
catalysts.

RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 184 OF 187 CAPLUS COPYRIGHT 2002 ACS
TI N-heterocyclic carbenes: novel **ruthenium**-alkylidene complexes
AN 1999:391587 CAPLUS
DN 131:144700
TI N-heterocyclic carbenes: novel **ruthenium**-alkylidene complexes
AU Weskamp, Thomas; Kohl, Florian J.; Herrmann, Wolfgang A.
CS Anorganisch-Chemisches Institut der Technischen Universitat Munchen,
Garching, D-85747, Germany
SO Journal of Organometallic Chemistry (1999), 582(2), 362-365
CODEN: JORCAI; ISSN: 0022-328X
PB Elsevier Science S.A.
DT Journal
LA English
OS CASREACT 131:144700
GI



AB **Ru**-based catalysts for olefin **metathesis** have attained enormous attention during the past years. Recently the application of N-heterocyclic carbenes extends and complements the ubiquitous phosphines.

The authors now report on new members of the family of **Ru**-based catalysts for olefin **metathesis** related to their recently published work. The synthesis of novel mixed carbene/phosphine- and homo-

and heterobimetallic **ruthenium** alkylidene complexes is presented. Thus, reaction of $[\text{RuCl}_2(\text{:CHPh})(\text{PCy}_3)_2]$ (PCy_3 = tricyclohexylphosphine) with 1,3-dialkylimidazolin-2-ylidene (I, R = cyclohexyl, (R)-phenylethyl, (R)-1-naphthylethyl) gave N-heterocyclic carbene **ruthenium** complexes II (R = same as above) in excellent yields. Reaction of bis(N-heterocyclic carbene) **ruthenium** complex III (R = cyclohexyl) with $[(p\text{-cymene})\text{MCl}_2]_2$ (M = **Ru**, **Os**) and $[\text{Cp}^*\text{MCl}_2]_2$ (M = Rh, Ir; Cp^* = pentamethylcyclopentadienyl) gave binuclear carbene complexes (IV; R = cyclohexyl, M1 = (p-cymene)MCl, Cp^*MCl with M same as in reactant). First applications of these catalysts

in ring-opening **metathesis** polymerization (ROMP) and ring-closing **metathesis** (RCM) show significantly higher catalytic activity than any complexes of this type yet known (no data).

RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 185 OF 187 CAPLUS COPYRIGHT 2002 ACS

TI Ring opening **metathesis** polymerization using new **ruthenium** alkylidene complexes with N-heterocyclic carbene ligands

AN 1999:213647 CAPLUS

DN 130:352621

TI Ring opening **metathesis** polymerization using new **ruthenium** alkylidene complexes with N-heterocyclic carbene ligands

AU Frenzel, Ulrich; Nuyken, Oskar; Kohl, Florian J.; Schattenmann, Wolfgang C.; Weskamp, Thomas; Herrmann, Wolfgang A.

CS Lehrstuhl fur Makromolekulare Stoffe, Technische Universitat Munchen,
Garching, D-85747, Germany
SO Polymeric Materials Science and Engineering (1999), 80, 135-136
CODEN: PMSEDG; ISSN: 0743-0515
PB American Chemical Society
DT Journal
LA English
AB The increase of catalytic activity from the iodo deriv. to the chloro
substituted compd. was obsd. in ring-opening **metathesis** polymn.
of various norbornene, cyclooctadiene, and cyclooctene derivs. using
ruthenium alkylidene complexes as catalysts. The catalysts showed
good tolerance towards several functional groups, e.g. -COOH or C:O.
RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 186 OF 187 CAPLUS COPYRIGHT 2002 ACS
TI Increased ring closing **metathesis** activity of **ruthenium**
-based olefin **metathesis** catalysts coordinated with
imidazolin-2-ylidene ligands
AN 1999:183179 CAPLUS
DN 130:296434
TI Increased ring closing **metathesis** activity of **ruthenium**
-based olefin **metathesis** catalysts coordinated with
imidazolin-2-ylidene ligands
AU Scholl, Matthias; Trnka, Tina M.; Morgan, John P.; Grubbs, Robert H.
CS Arnold & Mabel Beckman Laboratory Chemical Synthesis, Division Chemistry
&
Chemical Engineering, California Institute Technology, Pasadena, CA,
91125, USA
SO Tetrahedron Letters (1999), 40(12), 2247-2250
CODEN: TELEAY; ISSN: 0040-4039
PB Elsevier Science Ltd.
DT Journal
LA English
OS CASREACT 130:296434
AB A novel air and water tolerant, imidazolinylidene-substituted
ruthenium-based complex, has been prepd. starting from
RuCl₂(=CHPh)(PCy₃)₂ and shown to exhibit increased ring-closing
metathesis activity at elevated temp. compared to that of the
parent complex. Di-, tri-, and even tetra-substituted cycloolefins were
successfully prepd. from corresponding diene precursors using this new
catalyst in moderate to excellent yields.
RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 187 OF 187 CAPLUS COPYRIGHT 2002 ACS
TI Olefin **Metathesis**-Active **Ruthenium** Complexes Bearing a
Nucleophilic Carbene Ligand
AN 1999:163636 CAPLUS
DN 130:296806
TI Olefin **Metathesis**-Active **Ruthenium** Complexes Bearing a
Nucleophilic Carbene Ligand
AU Huang, Jinkun; Stevens, Edwin D.; Nolan, Steven P.; Petersen, Jeffrey L.
CS Departments of Chemistry, University of New Orleans, New Orleans, LA,
70148, USA
SO Journal of the American Chemical Society (1999), 121(12), 2674-2678
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal

LA English
 OS CASREACT 130:296806
 AB The reaction of [Cp*RuCl]₄ (1; Cp* = .eta.5-C5Me5) with the carbene ligand 1,3-bis(2,4,6-trimethylphenyl)imidazol-2-ylidene (IMes) affords a coordinatively unsatd. Cp*Ru(IMes)Cl (3) complex in 86% isolated yield. Soln. calorimetric results in this system provide information concerning the electron donor properties of the carbene ligand, which are very similar to those of PCy3. Structural information from single-crystal x-ray studies for complex 3 allows the detn. of steric parameters assocd. with this ligand. The thermochem. information is used to predict the magnitude of the enthalpic driving force behind substitution reactions involving RuCl2(:C(H)Ph)(PCy3)₂ (1) and the carbene ligand, IMes, affording the RuCl2(:C(H)Ph)(PCy3)(IMes) (6) complex in high yield. A similar mixed carbene/phosphine **ruthenium** complex, RuCl2(:C(H)Ph)(PPh3)(IMes), can also be isolated from RuCl2(:C(H)Ph)(PPh3)₂ and the IMes ligand. A single-crystal x-ray diffraction study has been performed on 6. The thermal stability of these mixed phosphine/carbene **ruthenium** carbene complexes has been studied at 60.degree. in toluene. Their catalytic activity has been evaluated for the ring closing **metathesis** of di-Et diallylmalonate.

RE.CNT 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

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NEWS 3 Apr 09	BEILSTEIN: Reload and Implementation of a New Subject Area
NEWS 4 Apr 09	ZDB will be removed from STN
NEWS 5 Apr 19	US Patent Applications available in IFICDB, IFIPAT, and IFIUDB
NEWS 6 Apr 22	Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS
NEWS 7 Apr 22	BIOSIS Gene Names now available in TOXCENTER
NEWS 8 Apr 22	Federal Research in Progress (FEDRIP) now available
NEWS 9 Jun 03	New e-mail delivery for search results now available
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NEWS 11 Jun 10	PCTFULL has been reloaded

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 saved answer sets no longer valid
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 NEWS 18 Aug 08 NTIS has been reloaded and enhanced
 NEWS 19 Aug 19 Aquatic Toxicity Information Retrieval (AQUIRE)
 now available on STN
 NEWS 20 Aug 19 IFIPAT, IFICDB, and IFIUDB have been reloaded
 NEWS 21 Aug 19 The MEDLINE file segment of TOXCENTER has been reloaded
 NEWS 22 Aug 26 Sequence searching in REGISTRY enhanced
 NEWS 23 Sep 03 JAPIO has been reloaded and enhanced
 NEWS 24 Sep 16 Experimental properties added to the REGISTRY file
 NEWS 25 Sep 16 Indexing added to some pre-1967 records in CA/CAPLUS
 NEWS 26 Sep 16 CA Section Thesaurus available in CAPLUS and CA
 NEWS 27 Oct 01 CASREACT Enriched with Reactions from 1907 to 1985
 NEWS 28 Oct 21 EVENTLINE has been reloaded
 NEWS 29 Oct 24 BEILSTEIN adds new search fields
 NEWS 30 Oct 24 Nutraceuticals International (NUTRACEUT) now available on
 STN
 NEWS 31 Oct 25 MEDLINE SDI run of October 8, 2002
 NEWS 32 Nov 18 DKILIT has been renamed APOLLIT
 NEWS 33 Nov 25 More calculated properties added to REGISTRY
 NEWS 34 Dec 02 TIBKAT will be removed from STN
 NEWS 35 Dec 04 CSA files on STN
 NEWS 36 Dec 17 PCTFULL now covers WP/PCT Applications from 1978 to date
 NEWS 37 Dec 17 TOXCENTER enhanced with additional content
 NEWS 38 Dec 17 Adis Clinical Trials Insight now available on STN
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Experimental and calculated property data are now available. See HELP
PROPERTIES for more information. See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

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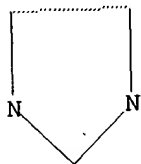
Uploading 09891144 ligand.str

L1 STRUCTURE UPLOADED

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L1 HAS NO ANSWERS

L1 STR



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=> search l1 sss full

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< 40.0% PROCESSED 400000 ITERATIONS
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SEARCH TIME: 00.00.06

172349 ANSWERS

FULL FILE PROJECTIONS: ONLINE **INCOMPLETE**
BATCH **INCOMPLETE**

PROJECTED ITERATIONS: EXCEEDS 1000000
PROJECTED ANSWERS: EXCEEDS 540953

L2 172349 SEA SSS FUL L1

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COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

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140.49

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=> 12

L3 19361 L2

=> Ruthenium or Ru

69421 RUTHENIUM

20 RUTHENIUMS

69421 RUTHENIUM

(RUTHENIUM OR RUTHENIUMS)

54409 RU

168 RUS

54555 RU

(RU OR RUS)

L4 86501 RUTHENIUM OR RU

=> Osmium or Os

19678 OSMIUM

5 OSMIUMS

19679 OSMIUM

(OSMIUM OR OSMIUMS)

23390 OS

69 OSES

248 ORA

17 ORAS

12 OSAR

75 OSSA

23801 OS
(OS OR OSES OR ORA OR ORAS OR OSAR OR OSSA)
L5 33821 OSMIUM OR OS

=> 14 or 15
L6 109558 L4 OR L5

=> metathesis
10376 METATHESIS
155 METATHESES
L7 10423 METATHESIS
(METATHESIS OR METATHESES)

=> 16 and 17
L8 1522 L6 AND L7

=> 13 and 18
L9 187 L3 AND L8

=> d 19 166-176 ti

L9 ANSWER 166 OF 187 CAPLUS COPYRIGHT 2002 ACS
TI **Ruthenium** carbene complexes with imidazol-2-ylidene ligands:
syntheses of conduritol derivatives reveals superior RCM activity

L9 ANSWER 167 OF 187 CAPLUS COPYRIGHT 2002 ACS
TI Synthesis of Bis- and Oligo-gem-difluorocyclopropanes Using the Olefin
Metathesis Reaction

L9 ANSWER 168 OF 187 CAPLUS COPYRIGHT 2002 ACS
TI Synthesis of Functionalized Olefins by Cross and Ring-Closing
Metatheses

L9 ANSWER 169 OF 187 CAPLUS COPYRIGHT 2002 ACS
TI Catalyst complex with carbene ligand

L9 ANSWER 170 OF 187 CAPLUS COPYRIGHT 2002 ACS
TI **Ruthenium** Carbene Complexes with N,N'-Bis(mesityl)imidazol-2-
ylidene Ligands: RCM Catalysts of Extended Scope

L9 ANSWER 171 OF 187 CAPLUS COPYRIGHT 2002 ACS
TI Allene cross-~~metathesis~~: synthesis of 1,3-disubstituted allenes

L9 ANSWER 172 OF 187 CAPLUS COPYRIGHT 2002 ACS
TI (p-cymene)RuCl₂ (L = 1,3-Bis(2,4,6-trimethylphenyl)imidazol-2-ylidene
and 1,3-Bis(2,6-diisopropylphenyl)imidazol-2-ylidene) and Related Complexes
as
Ring Closing **Metathesis** Catalysts. [Erratum to document cited in
CA131:243391]

L9 ANSWER 173 OF 187 CAPLUS COPYRIGHT 2002 ACS
TI Influence of Sterically Demanding Carbene Ligation on Catalytic Behavior
and Thermal Stability of **Ruthenium** Olefin **Metathesis**
Catalysts

L9 ANSWER 174 OF 187 CAPLUS COPYRIGHT 2002 ACS
TI Indenylidene-Imidazolylidene Complexes of **Ruthenium** as
Ring-Closing **Metathesis** Catalysts

L9 ANSWER 175 OF 187 CAPLUS COPYRIGHT 2002 ACS
TI Synthesis of Trisubstituted Alkenes via Olefin Cross-**Metathesis**

L9 ANSWER 176 OF 187 CAPLUS COPYRIGHT 2002 ACS
TI Coordinatively Unsaturated 16-Electron **Ruthenium** Allenylidene
Complexes: Synthetic, Structural, and Catalytic Studies

=> d 19 166-176 ti fbib abs

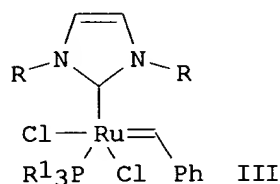
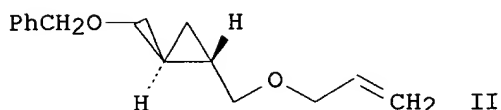
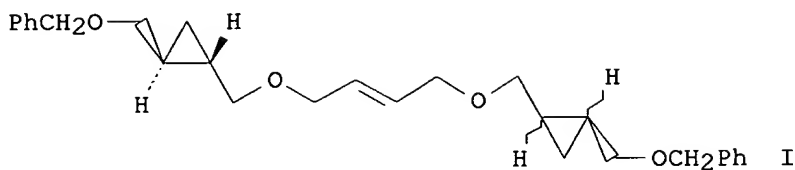
L9 ANSWER 166 OF 187 CAPLUS COPYRIGHT 2002 ACS
TI **Ruthenium** carbene complexes with imidazol-2-ylidene ligands:
syntheses of conduritol derivatives reveals superior RCM activity
AN 2000:261556 CAPLUS
DN 133:59000
TI **Ruthenium** carbene complexes with imidazol-2-ylidene ligands:
syntheses of conduritol derivatives reveals superior RCM activity
AU Ackermann, Lutz; El Tom, David; Furstner, Alois
CS Max-Planck-Institut fur Kohlenforschung, Mulheim/Ruhr, D-45470, Germany
SO Tetrahedron (2000), 56(15), 2195-2202
CODEN: TETRAB; ISSN: 0040-4020
PB Elsevier Science Ltd.
DT Journal
LA English
OS CASREACT 133:59000
AB Syntheses of conduritol A, E and F derivs. are described using
galactitol,

D-mannitol and D-glucitol, resp., as the starting materials. The key
steps of this approach comprise a Tebbe olefination reaction for the
prepn. of dienes, followed by ring closing **metathesis** (RCM) for
the formation of the polyhydroxylated cyclohexene rings of the targets.

A
comparative study shows that the latter transformation is best achieved
with catalytic amts. of **ruthenium** carbene complex bearing one
PCy3 and one 2,3-dihydro-1H-imidazol-2-ylidene ligand in its coordination
sphere.

RE.CNT 72 THERE ARE 72 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 167 OF 187 CAPLUS COPYRIGHT 2002 ACS
TI Synthesis of Bis- and Oligo-gem-difluorocyclopropanes Using the Olefin
Metathesis Reaction
AN 2000:239085 CAPLUS
DN 133:58545
TI Synthesis of Bis- and Oligo-gem-difluorocyclopropanes Using the Olefin
Metathesis Reaction
AU Itoh, Toshiyuki; Mitsukura, Koichi; Ishida, Nanae; Uneyama, Kenji
CS Department of Chemistry Faculty of Education and Department of Applied
Chemistry Faculty of Engineering, Okayama University, Okayama, 700-8530,
Japan
SO Organic Letters (2000), 2(10), 1431-1434
CODEN: ORLEF7; ISSN: 1523-7060
PB American Chemical Society
DT Journal
LA English
OS CASREACT 133:58545
GI



AB Synthesis of six types of novel bis- and oligo-gem-difluorocyclopropanes such as I has been accomplished through the olefin **metathesis** reaction protocol. E.g., olefin **metathesis** of (benzyloxymethyl) (allyloxymethyl) difluorocyclopropane II with the dimesityldihydroimidazolyliideneruthenium **metathesis** catalyst III (R = 2,4,6-Me3C6H2; R1 = cyclohexyl) over 36 h in methylene chloride gave I in 80% yield as a 4:1 mixt. of E and Z olefin stereoisomers. III and the Grubbs' **ruthenium metathesis** catalyst with coordinating tricyclohexylphosphine were used as olefin **metathesis** catalysts; catalyst III gave better results than the tricyclohexylphosphine-contg. catalyst for most of the substrates.

RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 168 OF 187 CAPLUS COPYRIGHT 2002 ACS
TI Synthesis of Functionalized Olefins by Cross and Ring-Closing
Metatheses
AN 2000:215112 CAPLUS
DN 133:4435
TI Synthesis of Functionalized Olefins by Cross and Ring-Closing
Metatheses
AU Chatterjee, Arnab K.; Morgan, John P.; Scholl, Matthias; Grubbs, Robert H.
CS Arnold and Mabel Beckman Laboratories of Chemical Synthesis Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA, 91125, USA
SO Journal of the American Chemical Society (2000), 122(15), 3783-3784
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English
OS CASREACT 133:4435
AB Functionalized olefins are prepd. by cross-**metathesis** and ring-closing **metathesis** of electron-deficient olefins employing a **ruthenium** alkylidene catalyst. The **ruthenium** catalyst was demonstrated to have high activity and functional group compatibility expanding the range of olefins that can participate in olefin **metathesis** reactions.

RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 169 OF 187. CAPLUS COPYRIGHT 2002 ACS
 TI Catalyst complex with carbene ligand
 AN 2000:190990 CAPLUS
 DN 132:238689
 TI Catalyst complex with carbene ligand
 IN Nolan, Steven P.; Huang, Jinkun
 PA University of New Orleans Foundation, USA
 SO PCT Int. Appl., 46 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000015339	A1	20000323	WO 1999-US20629	19990909
	W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
				US 1998-99722P P	19980910
				US 1999-115358PP	19990108
	CA 2343798	AA	20000323	CA 1999-2343798	19990909
				US 1998-99722P P	19980910
				US 1999-115358PP	19990108
	AU 9958175	A1	20000403	WO 1999-US20629W	19990909
				AU 1999-58175	19990909
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				US 1999-115358PP	19990108
				WO 1999-US20629W	19990909
	EP 1115491	A1	20010718	EP 1999-945604	19990909
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				WO 1999-US20629W	19990909
	JP 2002524250	T2	20020806	JP 2000-569918	19990909
				US 1998-99722P P	19980910
				US 1999-115358PP	19990108
				WO 1999-US20629W	19990909

PATENT FAMILY INFORMATION:

FAN 2001:676668

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001066248	A2	20010913	WO 2001-US5549	20010222
	WO 2001066248	A3	20020214		
	W:	CA, JP, US			
	RW:	AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR			
				US 2000-507958 A220000222	
				US 2000-507959 A220000222	
				US 2000-511122 A220000222	
				US 2000-511420 A220000222	

US 6316380	B1	20011113	US 2000-511654 A220000222
			US 2000-553542 A220000420
			US 2000-507958 20000222
			US 1998-99722P P 19980910
			US 1999-121056PP 19990222
			US 1999-154260PP 19990916
US 6362357	B1	20020326	US 2000-511654 20000222
			US 1999-121056PP 19990222
			US 1999-154260PP 19990916
US 6369265	B1	20020409	US 2000-511122 20000222
			US 1998-99722P P 19980910
			US 1999-121056PP 19990222
			US 1999-154260PP 19990916
			US 2000-507958 A 20000222
			US 2000-507959 A 20000222
			US 2000-511420 A 20000222
			US 2000-511654 A 20000222
US 6403801	B1	20020611	US 2000-507959 20000222
			US 1999-121056PP 19990222
			US 1999-154260PP 19990916
US 6403802	B1	20020611	US 2000-511420 20000222
			US 1998-99722P P 19980910
			US 1999-121056PP 19990222
			US 1999-154260PP 19990916

OS MARPAT 132:238689

AB A catalytic complex comprises: (a) a metal atom selected from the group consisting of **ruthenium** or **osmium**; (b) at least one anionic ligand ligated to the metal; (c) at least one nucleophilic carbene ligand ligated to the metal; (d) a further ligand ligated to the metal; and (e) a carbon-contg. ligand ligated to the metal, wherein the carbon-contg. ligand is selected from the group consisting of alkylidene, benzylidene, indenylidene, vinylidene, and allenylidene. The complexes are highly stable to air, moisture and thermal degrdn. The complexes are designed to efficiently carry out a variety of olefin **metathesis** reactions.

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 170 OF 187 CAPLUS COPYRIGHT 2002 ACS

TI **Ruthenium** Carbene Complexes with N,N'-Bis(mesityl)imidazol-2-ylidene Ligands: RCM Catalysts of Extended Scope

AN 2000:153666 CAPLUS

DN 132:279065

TI **Ruthenium** Carbene Complexes with N,N'-Bis(mesityl)imidazol-2-ylidene Ligands: RCM Catalysts of Extended Scope

AU Fuerstner, Alois; Thiel, Oliver R.; Ackermann, Lutz; Schanz, Hans-Joerg; Nolan, Steven P.

CS Max-Planck-Institut fuer Kohlenforschung, Muelheim/Ruhr, D-45470, Germany

SO Journal of Organic Chemistry (2000), 65(7), 2204-2207

CODEN: JOCEAH; ISSN: 0022-3263

PB American Chemical Society

DT Journal

LA English

OS CASREACT 132:279065

AB The **Ru** carbene complexes Cl₂Ru(PCy₃)L(L') 3a,b (L = N,N'-dimesityl-2,3-dihydro-1H-imidazol-2-ylidene; L' = benzylidene, 3-phenylindenylidene) constitute excellent precatalysts for ring-closing **metathesis** (RCM) reactions allowing the formation of tri- and tetrasubstituted cycloalkenes (e.g. 3,4-dimethyl-3-cyclopentene-1,1-

dicarboxylic acid di-Et ester). They also apply to annulations that are beyond the scope of the std. Grubbs carbene $\text{Cl}_2\text{Ru}(\text{PCy}_3)_2(\text{:CHPh})$ (e.g. 1,2,3,4,5,6-hexahydroindene-3a-carboxylic acid Me ester) as well as to ring-closing reactions of acrylic acid derivs. even if the resulting .alpha.,.beta.-unsatd. lactones (or lactams) are tri- or tetrasubstituted (e.g. 5-ethyl-3,4-dimethyl-2(5H)-furanone). The reactivity of 3a is highly dependent on the reaction medium: particularly high reaction rates are obsd. in toluene, although this solvent also leads to an increased tendency of the catalyst to isomerize the double bonds of the substrates.

RE.CNT 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 171 OF 187 CAPLUS COPYRIGHT 2002 ACS
TI Allene cross-**metathesis**: synthesis of 1,3-disubstituted allenes
AN 2000:50891 CAPLUS
DN 132:207474
TI Allene cross-**metathesis**: synthesis of 1,3-disubstituted allenes
AU Ahmed, Mahmood; Arnould, Thomas; Barrett, Anthony G. M.; Braddock, D. Christopher; Flack, Kevin; Procopiou, Panayiotis A.
CS Department of Chemistry, Imperial College of Science Technology and Medicine, London, SW7 2AY, UK
SO Organic Letters (2000), 2(4), 551-553
 CODEN: ORLEF7; ISSN: 1523-7060
PB American Chemical Society
DT Journal
LA English
OS CASREACT 132:207474
AB Grubbs catalyst, $\text{Cl}_2(\text{Cy}_3\text{P})_2\text{Ru:CHPh}$, was found to catalyze the cross-**metathesis** of monosubstituted allenes RCH:C:CH_2 [R = Me(CH₂)₅, cyclohexylethyl, PhCH₂OCH₂, etc.] to 1,3-disubstituted allenes RCH:C:CHR in varying yields. A considerable amt. of polymer was also produced. Phenylallenes reacted to give the polymer exclusively; in other reactions,
 no product was obtained.

RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 172 OF 187 CAPLUS COPYRIGHT 2002 ACS
TI (p-cymene) RuCl_2 (L = 1,3-Bis(2,4,6-trimethylphenyl)imidazol-2-ylidene
and
 1,3-Bis(2,6-diisopropylphenyl)imidazol-2-ylidene) and Related Complexes
as
 Ring Closing **Metathesis** Catalysts. [Erratum to document cited in
 CA131:243391]
AN 1999:757651 CAPLUS
DN 132:166317
TI (p-cymene) RuCl_2 (L = 1,3-Bis(2,4,6-trimethylphenyl)imidazol-2-ylidene
and
 1,3-Bis(2,6-diisopropylphenyl)imidazol-2-ylidene) and Related Complexes
as
 Ring Closing **Metathesis** Catalysts. [Erratum to document cited in
 CA131:243391]
AU Jafarpour, Laleh; Huang, Jinkun; Stevens, Edwin D.; Nolan, Steven P.
CS Department of Chemistry, University of New Orleans, New Orleans, LA,
 70148, USA
SO Organometallics (1999), 18(26), 5735
 CODEN: ORGND7; ISSN: 0276-7333
PB American Chemical Society
DT Journal

LA English
 AB On page 3761, the following sentence should appear in the first full paragraph in the left-hand column: "A fully labeled ORTEP drawing of [(p-cymene)RuLCl(Mes)(=C=C=CPh₂)]PF₆ (9) is available in the Supporting Information."

L9 ANSWER 173 OF 187 CAPLUS COPYRIGHT 2002 ACS
 TI Influence of Sterically Demanding Carbene Ligation on Catalytic Behavior and Thermal Stability of **Ruthenium** Olefin **Metathesis** Catalysts
 AN 1999:757389 CAPLUS
 DN 132:78673
 TI Influence of Sterically Demanding Carbene Ligation on Catalytic Behavior and Thermal Stability of **Ruthenium** Olefin **Metathesis** Catalysts
 AU Huang, Jinkun; Schanz, Hans-Joerg; Stevens, Edwin D.; Nolan, Steven P.
 CS Department of Chemistry, University of New Orleans, New Orleans, LA, 70148, USA
 SO Organometallics (1999), 18(25), 5375-5380
 CODEN: ORGND7; ISSN: 0276-7333
 PB American Chemical Society
 DT Journal
 LA English
 OS CASREACT 132:78673
 AB The exchange reaction of one phosphine ligand in Cl₂(PCy₃)₂Ru:CHPh (1; Cy = cyclohexyl) with the sterically demanding carbene ligands 1,3-bis(2,4,6-trimethylphenyl)-4-imidazolin-2-ylidene (IMes), 1,3-bis(4-methylphenyl)-4-imidazolin-2-ylidene (ITol), and 1,3-bis(4-chlorophenyl)-4-imidazolin-2-ylidene (IpCl) gives (PCy₃)(IMes)Cl₂Ru:CHPh (2), (PCy₃)(ITol)Cl₂Ru:CHPh (3), and (PCy₃)(IpCl)Cl₂Ru:CHPh (4). Similarly, one IMes ligand can be substituted for one PCyp₃ ligand in Cl₂(PCyp₃)₂Ru:CHCH:CMe₂ (5; Cyp = cyclopentyl) to produce (PCyp₃)(IMes)Cl₂Ru:CHPh (6) in high yield. X-ray structure anal. of 6 confirmed a near-square-pyramidal coordination sphere around the metal center. Improved catalytic properties and thermal stability are obsd. for 2 and 6 in comparison to the parent 1 and 5.

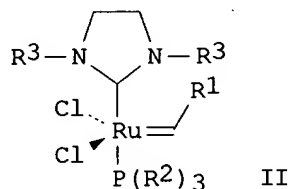
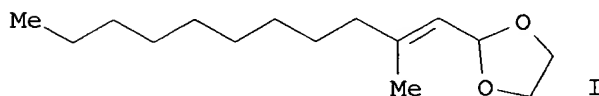
RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 174 OF 187 CAPLUS COPYRIGHT 2002 ACS
 TI Indenylidene-Imidazolylidene Complexes of **Ruthenium** as Ring-Closing **Metathesis** Catalysts
 AN 1999:715557 CAPLUS
 DN 132:93443
 TI Indenylidene-Imidazolylidene Complexes of **Ruthenium** as Ring-Closing **Metathesis** Catalysts
 AU Jafarpour, Laleh; Schanz, Hans-Joerg; Stevens, Edwin D.; Nolan, Steven P.
 CS Department of Chemistry, University of New Orleans, New Orleans, LA, 70148, USA
 SO Organometallics (1999), 18(25), 5416-5419
 CODEN: ORGND7; ISSN: 0276-7333
 PB American Chemical Society
 DT Journal
 LA English
 OS CASREACT 132:93443
 AB The indenylidene-imidazolylidene complexes of **Ru** (IMes)(PR₃)Cl₂Ru(3-phenylinden-1-ylidene) and (IPr)(PR₃)Cl₂Ru(3-phenylinden-1-ylidene) (IMes = 1,3-bis(2,4,6-trimethylphenyl)imidazol-2-

ylidene, IPr = 1,3-bis(2,6-diisopropylphenyl)imidazol-2-ylidene, and R = Ph, Cy (Cy = cyclohexyl)) were prepd. and are efficient catalyst precursors for ring-closing **metathesis**. The x-ray crystal structure of (IPr)(PCy₃)Cl₂Ru(3-phenylinden-1-ylidene) was detd. and clearly shows the coordination of **Ru** to an indenylidene moiety. The coordination geometry around the **ruthenium** center is distorted square pyramidal, with the strongest π -acidic ligand (indenylidene) assuming the unique apical site. The square base is defined by the two chlorides which are trans and the donor atoms of the phosphine and the imidazolylidene ligands with the **ruthenium** center lying 0.3443(12) Å. above this plane. The thermal stability of the above-mentioned compds. and their role as catalyst precursors in RCM reactions of di-Et diallylmalonate, diallyltosylamine, and di-Et bis(2-methylallyl)malonate were also presented.

RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 175 OF 187 CAPLUS COPYRIGHT 2002 ACS
TI Synthesis of Trisubstituted Alkenes via Olefin Cross-**Metathesis**
AN 1999:696959 CAPLUS
DN 132:78128
TI Synthesis of Trisubstituted Alkenes via Olefin Cross-**Metathesis**
AU Chatterjee, Arnab K.; Grubbs, Robert H.
CS Arnold and Mabel Beckman Laboratory of Chemical Synthesis Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA, 91125, USA
SO Organic Letters (1999), 1(11), 1751-1753
CODEN: ORLEF7; ISSN: 1523-7060
PB American Chemical Society
DT Journal
LA English
OS CASREACT 132:78128
GI



AB Trisubstituted alkenes, e.g. I, have been prepd. for the first time via intermol. olefin cross-**metathesis** in good yields with moderate E selectivity using 1,3-dimesityl-4,5-dihydroimidazol-2-ylidene **ruthenium** alkylidene complexes II [R₁ = Ph, (Me)₂C:CH; R₂ = cyclohexyl; R₃ = 2,4,6-(Me)₃C₆H₂]. In addn., protected alcs. near the geminal disubstituted olefin improve reactivity for cross-**metathesis**.

RE.CNT 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 176 OF 187 CAPLUS COPYRIGHT 2002 ACS
TI Coordinatively Unsaturated 16-Electron **Ruthenium** Allenylidene
Complexes: Synthetic, Structural, and Catalytic Studies
AN 1999:687193 CAPLUS
DN 132:50099
TI Coordinatively Unsaturated 16-Electron **Ruthenium** Allenylidene
Complexes: Synthetic, Structural, and Catalytic Studies
AU Schanz, Hans-Joerg; Jafarpour, Laleh; Stevens, Edwin D.; Nolan, Steven P.
CS Department of Chemistry, University of New Orleans, New Orleans, LA,
70148, USA
SO Organometallics (1999), 18(24), 5187-5190
CODEN: ORGND7; ISSN: 0276-7333
PB American Chemical Society
DT Journal
LA English
OS CASREACT 132:50099
AB The 1-pot reactions of [(p-cymene)RuCl₂]₂ (1) or (PPh₃)₄RuCl₂ (2) with 2
equiv of PCy₃ and 3,3-diphenylpropyn-3-ol afford the novel 16-electron
Ru allenylidene complex (PCy₃)₂Cl₂Ru(:C:C:CPh₂) (3) in high
yields. Substitution of one PCy₃ ligand in 3 for one nucleophilic
carbene
ligand, IMes [1,3-bis(2,4,6-trimethylphenyl)imidazol-2-ylidene], affords
(PCy₃)(IMes)Cl₂Ru(:C:C:CPh₂) (4). Single-crystal x-ray structure analyses
of complexes 3 and 4 were performed. Thermal stability of complexes 3
and
4 was studied, and their catalytic activity promoting ring-closing
metathesis (RCM) of various substrates was tested.

RE.CNT 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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=> d his

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FILE 'REGISTRY' ENTERED AT 09:27:23 ON 30 DEC 2002

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L3 19361 L2
L4 86501 RUTHENIUM OR RU
L5 33821 OSMIUM OR OS
L6 109558 L4 OR L5
L7 10423 METATHESIS
L8 1522 L6 AND L7
L9 187 L3 AND L8
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ZCAPLUS
NEWS 7 Apr 22 BIOSIS Gene Names now available in TOXCENTER
NEWS 8 Apr 22 Federal Research in Progress (FEDRIP) now available
NEWS 9 Jun 03 New e-mail delivery for search results now available
NEWS 10 Jun 10 MEDLINE Reload
NEWS 11 Jun 10 PCTFULL has been reloaded
NEWS 12 Jul 02 FOREGE no longer contains STANDARDS file segment
NEWS 13 Jul 22 USAN to be reloaded July 28, 2002;
saved answer sets no longer valid
NEWS 14 Jul 29 Enhanced polymer searching in REGISTRY
NEWS 15 Jul 30 NETFIRST to be removed from STN
NEWS 16 Aug 08 CANCERLIT reload
NEWS 17 Aug 08 PHARMAMarketLetter(PHARMAML) - new on STN
NEWS 18 Aug 08 NTIS has been reloaded and enhanced
NEWS 19 Aug 19 Aquatic Toxicity Information Retrieval (AQUIRE)
now available on STN
NEWS 20 Aug 19 IFIPAT, IFICDB, and IFIUDB have been reloaded
NEWS 21 Aug 19 The MEDLINE file segment of TOXCENTER has been reloaded
NEWS 22 Aug 26 Sequence searching in REGISTRY enhanced
NEWS 23 Sep 03 JAPIO has been reloaded and enhanced
NEWS 24 Sep 16 Experimental properties added to the REGISTRY file
NEWS 25 Sep 16 Indexing added to some pre-1967 records in CA/CAPLUS
NEWS 26 Sep 16 CA Section Thesaurus available in CAPLUS and CA

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 NEWS 29 Oct 24 BEILSTEIN adds new search fields
 NEWS 30 Oct 24 Nutraceuticals International (NUTRACEUT) now available on
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 NEWS 31 Oct 25 MEDLINE SDI run of October 8, 2002
 NEWS 32 Nov 18 DKILIT has been renamed APOLLIT
 NEWS 33 Nov 25 More calculated properties added to REGISTRY
 NEWS 34 Dec 02 TIBKAT will be removed from STN
 NEWS 35 Dec 04 CSA files on STN
 NEWS 36 Dec 17 PCTFULL now covers WP/PCT Applications from 1978 to date
 NEWS 37 Dec 17 TOXCENTER enhanced with additional content
 NEWS 38 Dec 17 Adis Clinical Trials Insight now available on STN
 NEWS 39 Dec 30 ISMEC no longer available

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* * * * * STN Columbus * * * * *

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=> file caplus

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	2.73	2.73

FILE 'CAPLUS' ENTERED AT 10:58:52 ON 30 DEC 2002

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FILE COVERS 1907 - 30 Dec 2002 VOL 138 ISS 1
FILE LAST UPDATED: 29 Dec 2002 (20021229/ED)

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the CAS Roles thesaurus (/RL field) in this file.

=> olefin metathesis

84795 OLEFIN

85216 OLEFINS

130848 OLEFIN

(OLEFIN OR OLEFINS)

10376 METATHESIS

155 METATHESES

10423 METATHESIS

(METATHESIS OR METATHESES)

L1 1493 OLEFIN METATHESIS

(OLEFIN(W)METATHESIS)

=> trisubstituted

L2 6651 TRISUBSTITUTED

=> l1 and l2

L3 9 L1 AND L2

=> d l3 1-9 ti

L3 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2002 ACS

TI Callipeltoside A: Total Synthesis, Assignment of the Absolute and
Relative

Configuration, and Evaluation of Synthetic Analogues

L3 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2002 ACS

TI Total Synthesis and Absolute Configuration of Liverwort Diterpenes,

(-)-13(15)E,16E-3.beta.,4.beta.-Epoxy-18-hydroxysphenoloba-13(15),16-diene
and (-)-13(15)Z,16E-3.beta.,4.beta.-Epoxy-18-hydroxysphenoloba-13(15),16-
diene, by Use of the Ring Closing Metathesis Reaction Applied to
Seven-Membered Carbocycles with a **Trisubstituted** Double Bond

L3 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2002 ACS

TI Metal complexes for the synthesis of molecules and materials

L3 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2002 ACS

TI Ruthenium complexes for **olefin metathesis**

L3 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2002 ACS

TI Synthetic methodology for the construction of structurally diverse
cyclopropanes

L3 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2002 ACS

TI Synthesis of the Hydroazulene Ring System of Guanacastepene

L3 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2002 ACS
 TI Exploiting the Reversibility of **Olefin Metathesis**.
 Syntheses of Macrocyclic **Trisubstituted** Alkenes and
 (R,R)-(-)-Pyrenophorin

L3 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2002 ACS
 TI A series of ruthenium(II) ester-carbene complexes as **olefin**
metathesis initiators: metathesis of acrylates

L3 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2002 ACS
 TI Titanacyclobutanes derived from strained, cyclic olefins: the living
 polymerization of norbornene

=> d 13 1-9 ti fbib abs

L3 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2002 ACS
 TI Callipeltoside A: Total Synthesis, Assignment of the Absolute and
 Relative
 Configuration, and Evaluation of Synthetic Analogues
 AN 2002:585811 CAPLUS
 DN 137:294812
 TI Callipeltoside A: Total Synthesis, Assignment of the Absolute and
 Relative
 Configuration, and Evaluation of Synthetic Analogues
 AU Trost, Barry M.; Gunzner, Janet L.; Dirat, Olivier; Rhee, Young H.
 CS Department of Chemistry, Stanford University, Stanford, CA, 94305-5080,
 USA
 SO Journal of the American Chemical Society (2002), 124(35), 10396-10415
 CODEN: JACSAT; ISSN: 0002-7863
 PB American Chemical Society
 DT Journal
 LA English
 GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The total synthesis of the novel antitumor agent callipeltoside A (I), as
 well as several analogs, is accomplished and allows assignment of the
 stereochem. not previously established. A convergent strategy is
 employed
 wherein the target is dissected into three units-the core macrolactone
 II,
 the sugar callipeltose, and a cyclopropyl bearing chain. The strategy
 for
 the synthesis of the macrolactone derives from employment of
 diastereoselective aldol reactions that emanate from an 11 carbon piece.
 The stereochem. of the latter derives from the chiral pool and two asym.
 reactions-a ketone redn. using CBS-oxazaborolidine and a Pd catalyzed
 asym. allylic alkylation (AAA). The novelty of the latter protocol is
 its
 control of regioselectivity as well as abs. configuration. The
trisubstituted olefin is generated using an alkene-alkyne coupling
 to create a **trisubstituted** olefin with complete control of
 geometry. The excellent chemo- and regioselectivity highlights the
 synthetic potential of this new ruthenium catalyzed process. The

macrolactonization employs in situ formation of an acylketene generated by the thermolysis of a m-dioxolenone. Two strategies evolved for attachment of the side chain-one based upon olefination and a second upon **olefin metathesis**. The higher efficiency of the latter makes it the method of choice. A novel one pot **olefin metathesis**-Takai olefination protocol that should be broadly applicable is developed. The sugar is attached by a glycosylation by employing the O-trichloroacetimidate III. This route provided both C-13 epimers of the macrolactone by using either enantiomeric ligand in the Pd AAA reaction. It also provided both trans-chlorocyclopropane diastereomers of I which allows the C-20 and C-21 configuration to be established as S and R, resp. The convergent nature of the synthesis in which the largest piece, the macrolactone, require only 16 linear steps imparts utility to this strategy for the establishment of the structure-activity relationship. Initial biol. testing demonstrates the irrelevance of the chloro substituent and the necessity of the sugar.

RE.CNT 66 THERE ARE 66 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2002 ACS

TI Total Synthesis and Absolute Configuration of Liverwort Diterpenes,

(-)-13(15)E,16E-3.beta.,4.beta.-Epoxy-18-hydroxysphenoloba-13(15),16-diene and (-)-13(15)Z,16E-3.beta.,4.beta.-Epoxy-18-hydroxysphenoloba-13(15),16-diene, by Use of the Ring Closing Metathesis Reaction Applied to Seven-Membered Carbocycles with a **Trisubstituted** Double Bond

AN 2002:565387 CAPLUS

DN 137:263194

TI Total Synthesis and Absolute Configuration of Liverwort Diterpenes,

(-)-13(15)E,16E-3.beta.,4.beta.-Epoxy-18-hydroxysphenoloba-13(15),16-diene and (-)-13(15)Z,16E-3.beta.,4.beta.-Epoxy-18-hydroxysphenoloba-13(15),16-diene, by Use of the Ring Closing Metathesis Reaction Applied to Seven-Membered Carbocycles with a **Trisubstituted** Double Bond

AU Nakashima, Katsuyuki; Inoue, Kosuke; Sono, Masakazu; Tori, Motoo

CS Faculty of Pharmaceutical Sciences, Tokushima Bunri University, Tokushima,

770-8514, Japan

SO Journal of Organic Chemistry (2002), 67(17), 6034-6040
CODEN: JOCEAH; ISSN: 0022-3263

PB American Chemical Society

DT Journal

LA English

AB Seven-membered cyclic compds. possessing **trisubstituted** double bonds have been effectively constructed employing the Grubbs catalyst to effect **olefin metathesis**. The keto ester does not undergo cyclization; however, alcs. protected by the silyl groups smoothly

cyclized into seven-membered compds. The product was successfully converted to (-)-13(15)E,16E-3.beta.,4.beta.-epoxy-18-hydroxysphenoloba-13(15),16-diene and (-)-13(15)Z,16E-3.beta.,4.beta.-epoxy-18-hydroxysphenoloba-13(15),16-diene, liverwort diterpenes isolated from *Anastrophyllum auritum* to establish the abs. configuration.

RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2002 ACS

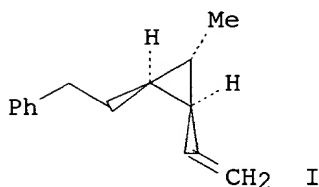
TI Metal complexes for the synthesis of molecules and materials
 AN 2002:189967 CAPLUS
 TI Metal complexes for the synthesis of molecules and materials
 AU Grubbs, Robert H.
 CS Division of Chemistry and Chemical Engineering, California Institute of
 Technology, Pasadena, CA, 91125, USA
 SO Abstracts of Papers, 223rd ACS National Meeting, Orlando, FL, United
 States, April 7-11, 2002 (2002), INOR-364 Publisher: American Chemical
 Society, Washington, D. C.
 CODEN: 69CKQP
 DT Conference; Meeting Abstract
 LA English
 AB Over the past few years the **olefin metathesis** reaction
 has emerged as a powerful tool for the formation of C-C bonds in large
 and small mols. Ring opening (ROMP) and closing metathesis (RCM) has seen
 the broadest applications with cross metathesis (XMET) finding an increasing
 role. Key to these advances is the availability of well-defined
 alkylidene-metal complexes that catalyze this transformation. At this
 time the most broadly used are the bisphosphine dichlororuthenium
 alkylidene complexes. To increase the activity and selectivity of the
 ruthenium family, new derivs. have been prep'd. These derivs. include
 ruthenium complexes with a family of imidazolinyldiene ligands. These
 designs are based on the mechanistic studies that demonstrated that the
 activity of the system was related to the large cone angle and basicity
 of the cyclohexylphosphine. Continued improvements based on these
 mechanistic observations have led to a new family of functional group
 tolerant ruthenium catalysts with very high activity and efficiency.
 This increased activity provides routes for the synthesis of
trisubstituted double bonds by cross metathesis. In addn., these
 complexes allow the stereoselective synthesis of unsat'd. carbonyls by
 simple cross metathesis of acrylates and terminal olefins. A no. of
 functional polymers have been prep'd. that exploit the abilities of these
 new members of the family of ruthenium based **olefin
 metathesis** catalysts.

L3 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2002 ACS
 TI Ruthenium complexes for **olefin metathesis**
 AN 2001:202526 CAPLUS
 TI Ruthenium complexes for **olefin metathesis**
 AU Grubbs, Robert H.
 CS Chemistry 164-30CR, Caltech, Pasadena, CA, 91125, USA
 SO Abstr. Pap. - Am. Chem. Soc. (2001), 221st, ORGN-042
 CODEN: ACSRAL; ISSN: 0065-7727
 PB American Chemical Society
 DT Journal; Meeting Abstract
 LA English
 AB Over the past few years the **olefin metathesis** reaction
 has emerged as a powerful tool for the formation of C-C bonds in complex
 mols. Ring closing metathesis (RCM) has seen the broadest applications
 with cross metathesis (XMET) finding an increasing role. At this time
 the most broadly used catalysts are the bisphosphine dichlororuthenium
 alkylidene complexes. To increase the activity and selectivity of the
 ruthenium family, new derivs. have been prep'd. Continued improvements
 based on mechanistic observations have led to a new family of functional

group tolerant ruthenium catalysts with very high activity and efficiency.

This increased activity provides routes for the synthesis of **trisubstituted** double bonds and the stereoselective synthesis of unsatd. carbonyls by simple cross metathesis of acrylates and terminal olefins. A no. of functional polymers have been prepd. that exploit the abilities of these new members of the family of ruthenium based **olefin metathesis** catalysts.

L3 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2002 ACS
TI Synthetic methodology for the construction of structurally diverse cyclopropanes
AN 2001:168541 CAPLUS
DN 134:340291
TI Synthetic methodology for the construction of structurally diverse cyclopropanes
AU Taylor, Richard E.; Engelhardt, F. Conrad; Schmitt, Michael J.; Yuan, Haiqing
CS Department of Chemistry and Biochemistry, University of Notre Dame, Notre Dame, IN, 6556-5670, USA
SO Journal of the American Chemical Society (2001), 123(13), 2964-2969
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English
OS CASREACT 134:340291
GI



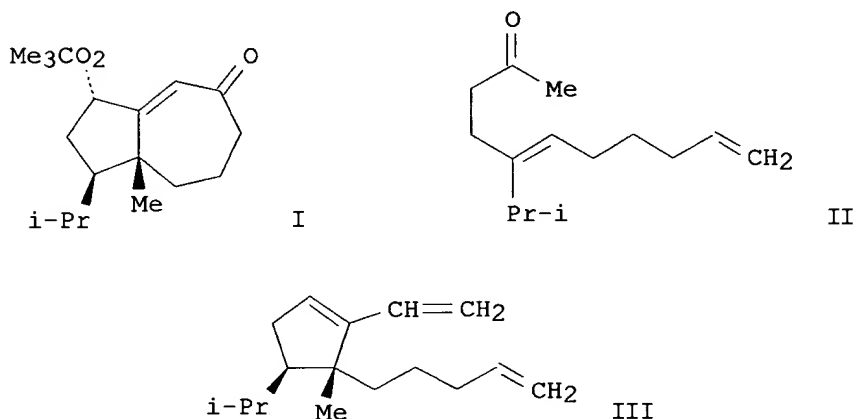
AB Practical and efficient routes for the stereoselective conversion of homoallylic alcs., e.g., syn-Ph(CH₂)₂CH(OH)CHMeCH:CH₂, to diastereomerically pure cis-, trans-1,2-disubstituted, and 1,2,3-**trisubstituted** cyclopropanes, e.g., I, have been developed. The routes are highlighted by **olefin metathesis** strategies and the stabilization of an intermediate cyclopropylcarbinyl cation by

the

.beta.-silicon effect. The stereospecificity of the key cyclization step has been rationalized by transition-state models in which the important determinants include (i) a minimization of the steric interactions about the forming cyclopropane bond and (ii) an inversion of stereochem. at the activated homoallylic alc. position. The cyclopropane product chirality is ultimately controlled by the choice of homoallylic alc. starting material. Through this method nonracemic, diastereomerically pure homoallylic alcs. can be converted in two steps to nonracemic, diastereomerically pure cyclopropane structural units. The scope and limitations of this versatile methodol. have also been investigated.

RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2002 ACS
 TI Synthesis of the Hydroazulene Ring System of Guanacastepene
 AN 2001:44893 CAPLUS
 DN 134:222885
 TI Synthesis of the Hydroazulene Ring System of Guanacastepene
 AU Snider, Barry B.; Hawryluk, Natalie A.
 CS Department of Chemistry, Brandeis University, Waltham, MA, 02454-9110,
 USA
 SO Organic Letters (2001), 3(4), 569-572
 CODEN: ORLEF7; ISSN: 1523-7060
 PB American Chemical Society
 DT Journal
 LA English
 GI



AB A 12-step synthesis of I, the functionalized hydroazulenone ring of guanacastepene, has been completed using the EtAlCl₂-initiated cyclization of .gamma.,.delta.-unsatd. ketone II to construct a 2,2,3-**trisubstituted** cyclopentanone, the palladium-catalyzed coupling of vinylmagnesium bromide with a enol triflate to prep. triene III, and **olefin metathesis** of triene III to form the key hydroazulene.

RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2002 ACS
 TI Exploiting the Reversibility of **Olefin Metathesis**.
 Syntheses of Macrocyclic **Trisubstituted** Alkenes and
 (R,R)-(-)-Pyrenophorin
 AN 2001:27836 CAPLUS
 DN 134:207635
 TI Exploiting the Reversibility of **Olefin Metathesis**.
 Syntheses of Macrocyclic **Trisubstituted** Alkenes and
 (R,R)-(-)-Pyrenophorin
 AU Fuerstner, Alois; Thiel, Oliver R.; Ackermann, Lutz
 CS Max-Planck-Institut fuer Kohlenforschung, Muelheim/Ruhr, D-45470, Germany
 SO Organic Letters (2001), 3(3), 449-451

CODEN: ORLEF7; ISSN: 1523-7060
PB American Chemical Society
DT Journal
LA English
OS CASREACT 134:207635
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The formation of the **trisubstituted** cycloalkene I by RCM (ring-closing metathesis) of diene II proceeds via an acyclic dimer, thus demonstrating the ready reversibility of **olefin metathesis** if catalyzed by "second generation" ruthenium carbene complexes. When applied to acrylate III, these catalysts trigger a cyclooligomerization process that evolves with time and serves as key step

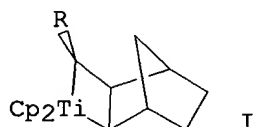
en route to the lactide antibiotic (-)-pyrenophorin (IV).
RE.CNT 71 THERE ARE 71 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2002 ACS
TI A series of ruthenium(II) ester-carbene complexes as **olefin metathesis** initiators: metathesis of acrylates
AN 2000:443431 CAPLUS
DN 133:207970
TI A series of ruthenium(II) ester-carbene complexes as **olefin metathesis** initiators: metathesis of acrylates
AU Ulman, M.; Belderrain, T. R.; Grubbs, R. H.
CS Division of Chemistry and Chemical Engineering, The Arnold and Mabel Beckman Laboratory of Chemical Synthesis, California Institute of Technology, Pasadena, CA, 91125, USA
SO Tetrahedron Letters (2000), 41(24), 4689-4693
CODEN: TELEAY; ISSN: 0040-4039
PB Elsevier Science Ltd.
DT Journal
LA English
AB A series of ester-carbene complexes, $\text{Cl}_2(\text{Cy}_3\text{P})_2\text{Ru:CHZ}$ ($\text{Z} = \text{CO}_2\text{R}$, $\text{R} = \text{Me}$, $p\text{-tolyl}$, $t\text{-Bu}$, $i\text{Pr}$, cyclohexyl, 1-adamantyl, Ph), were synthesized. These complexes were highly active for the metathesis of olefinic substrates, including acrylates and **trisubstituted** olefins. In addn., the ester-carbene moiety is thermodynamically high in energy. As a result, these complexes react to ring-open cyclohexene by metathesis to alleviate the thermodyn. strain of the ester-carbene ligand.

RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2002 ACS
TI Titanacyclobutanes derived from strained, cyclic olefins: the living polymerization of norbornene
AN 1986:89031 CAPLUS
DN 104:89031
TI Titanacyclobutanes derived from strained, cyclic olefins: the living polymerization of norbornene
AU Gilliom, Laura R.; Grubbs, Robert H.
CS Lab. Chem., California Inst. Technol., Pasadena, CA, 91125, USA

SO Journal of the American Chemical Society (1986), 108(4), 733-42
 CODEN: JACSAT; ISSN: 0002-7863
 DT Journal
 LA English
 GI



AB I (R = H, Cp = .eta.5-cyclopentadienyl) (II) [99798-40-0] and I (R = 1,1-dimethylallyl, Cp = as above) (III) [99798-42-2] were prepd. from norbornene [498-66-8] and Cp2Ti:CH2 and Cp2Ti:CHCMe2CH:CH2, resp. On thermolysis, both II and III produced products consistent with the intermediacy of .alpha.-substituted titanocene carbene compds. Thermolysis at 65.degree. in the presence of excess norbornene afforded ring-opened polynorbornene [25038-76-0] with cis-trans ratio 38:62. The polymns. were highly efficient in catalyst and yielded polymers of controlled mol. wt. Polymer prepd. from III showed polydispersities .ltoreq.1.08. The mol. wt. distributions of polymers obtained with II were always broader than those obtained with III. The kinetics of both polymns. were zero order in monomer with .DELTA.G.thermod.338 = 24 kcal/mol, .DELTA.H.thermod. = 27 kcal/mol, and .DELTA.S.thermod. = 9 eu. Polymn. with II showed an induction period corresponding to a 1st-order decay of II with t1/2 = 80 min at 65.degree., whereas the polymn. with

III was linear throughout. Simultaneous incorporation of norbornene-d2 into the polymer by all active sites confirmed that this system was best described as a living polymer. The polymn. mechanism was discussed as an **olefin metathesis** with rate-limiting cleavage of **trisubstituted** titanacyclobutanes affording high-energy carbene intermediates.

=> logoff hold

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
30.81	33.54

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
-5.58	-5.58

CA SUBSCRIBER PRICE

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STN INTERNATIONAL SESSION SUSPENDED AT 11:03:03 ON 30 DEC 2002

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LOGINID:sssptal623paz

PASSWORD:

* * * * * RECONNECTED TO STN INTERNATIONAL * * * * *
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FILE 'CAPLUS' ENTERED AT 11:33:38 ON 30 DEC 2002
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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	30.81	33.54

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-5.58	-5.58

=>

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	34.77	37.50

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'LAST RELOADED: Dec 20, 2002 (20021220/UP).

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CATWLIGNDS/A	TEMP	187 ANSWERS IN FILE CAPLUS
ESTERODOR/L	05 SEP 2002	42 L-NUMBERS
INDIUMCL3/A	30 MAY 2001	1 ANSWER IN FILE REGISTRY
LIGANDS/A	TEMP	19361 ANSWERS IN FILE CAPLUS
LTWENTAUGFOR/A	04 AUG 2001	72 ANSWERS IN FILE CAPLUS
METATHESIS/L	TEMP	9 L-NUMBERS
NEOTAMECRYST/A	24 APR 2001	59 ANSWERS IN FILE CAPLUS
NVLARMFULGEN/A	19 APR 2001	196 ANSWERS IN FILE REGISTRY
POHBENZALDEH/A	10 JUL 2001	5519 ANSWERS IN FILE CAPLUS
PROSTACMPD15/A	01 AUG 2001	34 ANSWERS IN FILE CAPLUS
STILLEAPP/L	07 JAN 2002	17 L-NUMBERS
TWOAMINOPOLY/Q	16 APR 2001	UPLOADED STRUCTURE

=>

NO SAVED SDI REQUESTS

=>

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.06	37.56

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-5.58

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```
=>
L4          STR
L5 ( 172349)SEA FILE=REGISTRY SSS FUL L4
L6 ( 19361)SEA FILE=CAPLUS ABB=ON PLU=ON L5
L7 ( 86501)SEA FILE=CAPLUS ABB=ON PLU=ON RUTHENIUM OR RU
L8 ( 33821)SEA FILE=CAPLUS ABB=ON PLU=ON OSMIUM OR OS
L9 ( 109558)SEA FILE=CAPLUS ABB=ON PLU=ON L7 OR L8
L10 ( 10423)SEA FILE=CAPLUS ABB=ON PLU=ON METATHESIS
L11 ( 1522)SEA FILE=CAPLUS ABB=ON PLU=ON L9 AND L10
L12      187 SEA FILE=CAPLUS ABB=ON PLU=ON L6 AND L11
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<-----User Break----->

=> logoff hold		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	5.54	43.10

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-5.58

SESSION WILL BE HELD FOR 60 MINUTES
 STN INTERNATIONAL SESSION SUSPENDED AT 11:48:20 ON 30 DEC 2002

Connecting via Winsock to STN

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LOGINID:sssptal623paz

PASSWORD:

* * * * * RECONNECTED TO STN INTERNATIONAL * * * * *
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FILE 'CAPLUS' ENTERED AT 11:51:30 ON 30 DEC 2002
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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	5.54	43.10

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-5.58

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	5.54	43.10

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-5.58

FILE 'REGISTRY' ENTERED AT 11:51:41 ON 30 DEC 2002
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STRUCTURE FILE UPDATES: 29 DEC 2002 HIGHEST RN 477761-07-2
DICTIONARY FILE UPDATES: 29 DEC 2002 HIGHEST RN 477761-07-2

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STN Note 27, Searching Properties in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> e 2-methylpropen/cn

E1	1	2-METHYLPROPANOYL ISOCYANATE/CN
E2	1	2-METHYLPROPANOYLTRIPROPYLSTANNANE/CN
E3	0 -->	2-METHYLPROPEN/CN
E4	1	2-METHYLPROPENAL/CN
E5	1	2-METHYLPROPENAMIDE/CN
E6	1	2-METHYLPROPENE/CN

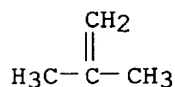
E7 1 2-METHYLPROPENE POLYMER/CN
 E8 1 2-METHYLPROPENE RADICAL CATION/CN
 E9 1 2-METHYLPROPENE SECONDARY OZONIDE/CN
 E10 1 2-METHYLPROPENE SULFIDE/CN
 E11 1 2-METHYLPROPENE-1-PROPENE COPOLYMER/CN
 E12 1 2-METHYLPROPENE-PROPENE POLYMER/CN

=> e6

L16 1 2-METHYLPROPENE/CN

=> d 116

L16 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2002 ACS
 RN 115-11-7 REGISTRY
 CN 1-Propene, 2-methyl- (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN Propene, 2-methyl- (8CI)
 OTHER NAMES:
 CN .gamma.-Butylene
 CN 1,1-Dimethylethene
 CN 1,1-Dimethylethylene
 CN 2-Methyl-1-propene
 CN 2-Methyl-2-propene
 CN **2-Methylpropene**
 CN 2-Methylpropylene
 CN i-Butene
 CN iso-Butene
 CN Isobutene
 CN Isobutylene
 CN Isopropylidenemethylene
 FS 3D CONCORD
 MF C4 H8
 CI COM
 LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
 BIOTECHNO, CA, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX,
 CHEMLIST, CHEMSAFE, CIN, CSCHM, CSNB, DETHERM*, DIPPR*, EMBASE, ENCOMPLIT,
 ENCOMPLIT2, ENCOMPPAT,
 ENCOMPPAT2, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, MEDLINE,
 MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO, SYNTHLINE,
 TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VTB
 (*File contains numerically searchable property data)
 Other Sources: DSL**, EINECS**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

11935 REFERENCES IN FILE CA (1962 TO DATE)
 449 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 11941 REFERENCES IN FILE CAPLUS (1962 TO DATE)
 23 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> e propene/cn

E1	1	PROPENAL-2-VINYLPYRIDINE COPOLYMER/CN
E2	1	PROPENAMIDE/CN
E3	1 -->	PROPENE/CN
E4	1	PROPENE CATION RADICAL/CN
E5	1	PROPENE COMPOUND WITH CHLORINE (1:1)/CN
E6	1	PROPENE DICATION/CN
E7	1	PROPENE HEPTAMER/CN
E8	1	PROPENE HOMOPOLYMER/CN
E9	1	PROPENE ISOTACTIC POLYMER/CN
E10	1	PROPENE MONOOXYGENASE/CN
E11	1	PROPENE OCTAHYDRATE/CN
E12	1	PROPENE OXIDE/CN

=> e3

L17 1 PROPENE/CN

=> d 117

L17 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2002 ACS

RN 115-07-1 REGISTRY

CN 1-Propene (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN **Propene (8CI)**

OTHER NAMES:

CN 1-Propylene

CN Methylethylene

CN Propylene

CN R 1270

FS 3D CONCORD

DR 676-63-1, 33004-01-2

MF C3 H6

CI COM

LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DETHERM*, DIPPR*, EMBASE, ENCOMPLIT,

ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VTB
(*File contains numerically searchable property data)

Other Sources: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)

H₃C-CH=CH₂

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

32234 REFERENCES IN FILE CA (1962 TO DATE)

2402 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

32250 REFERENCES IN FILE CAPLUS (1962 TO DATE)

28 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> e 2-methyl-2-butene/cn

E1 1 2-METHYL-2-BUTENAL/CN

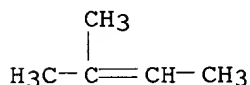
E2 1 2-METHYL-2-BUTENAMIDE/CN
 E3 1 --> 2-METHYL-2-BUTENE/CN
 E4 1 2-METHYL-2-BUTENE CATION RADICAL/CN
 E5 1 2-METHYL-2-BUTENE COMPOUND WITH BROMINE (1:1)/CN
 E6 1 2-METHYL-2-BUTENE COMPOUND WITH CHLORINE (1:1)/CN
 E7 1 2-METHYL-2-BUTENE DIMER/CN
 E8 1 2-METHYL-2-BUTENE OXIDE/CN
 E9 1 2-METHYL-2-BUTENE RADICAL CATION/CN
 E10 1 2-METHYL-2-BUTENE TRIMER/CN
 E11 1
 2-METHYL-2-BUTENE-.ALPHA.-METHYLSTYRENE-CIS-2-PENTENE-PIPERYLENE COPOLYMER/CN
 E12 1 2-METHYL-2-BUTENE-.ALPHA.-METHYLSTYRENE-PIPERYLENE
 COPOLYMER/CN

=> e3

L18 1 2-METHYL-2-BUTENE/CN

=> d 118

L18 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2002 ACS
 RN 513-35-9 REGISTRY
 CN 2-Butene, 2-methyl- (7CI, 8CI, 9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN .beta.-Isoamylene
 CN 1,1,2-Trimethylethylene
 CN **2-Methyl-2-butene**
 CN 3-Methyl-2-butene
 CN Amylene
 CN Trimethylethene
 CN Trimethylethylene
 FS 3D CONCORD.
 MF C5 H10
 CI COM
 LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA,
 CAOLD, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE,
 CIN, CSCHEM, DETHERM*, DIPPR*, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2,
 GMELIN*, HODOC*, HSDB*,
 IFICDB, IFIPAT, IFIUDB, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PROMT,
 SPECINFO, TOXCENTER, ULIDAT, USPAT2, USPATFULL
 (*File contains numerically searchable property data)
 Other Sources: DSL**, EINECS**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3492 REFERENCES IN FILE CA (1962 TO DATE)
 31 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 3493 REFERENCES IN FILE CAPLUS (1962 TO DATE)
 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> file caplu

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	17.88	60.98
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-5.58

FILE 'CAPLUS' ENTERED AT 11:53:23 ON 30 DEC 2002
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FILE COVERS 1907 - 30 Dec 2002 VOL 138 ISS 1
 FILE LAST UPDATED: 29 Dec 2002 (20021229/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=> 116

L19 11943 L16

=> 117

L20 32254 L17

=> 118

L21 3494 L18

=> 119 and 120 and 121

L22 513 L19 AND L20 AND L21

=> d his

(FILE 'HOME' ENTERED AT 10:51:22 ON 30 DEC 2002)

FILE 'CAPLUS' ENTERED AT 10:58:52 ON 30 DEC 2002

L1 1493 OLEFIN METATHESIS
 L2 6651 TRISUBSTITUTED
 L3 9 L1 AND L2

FILE 'STNGUIDE' ENTERED AT 11:39:33 ON 30 DEC 2002

FILE 'CAPLUS' ENTERED AT 11:40:12 ON 30 DEC 2002

ACT CATWLIGNDS/A

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L4          STR
L5 (      172349)SEA FILE=REGISTRY SSS FUL L4
L6 (      19361)SEA FILE=CAPLUS ABB=ON  PLU=ON  L5
L7 (      86501)SEA FILE=CAPLUS ABB=ON  PLU=ON  RUTHENIUM OR RU
L8 (      33821)SEA FILE=CAPLUS ABB=ON  PLU=ON  OSMIUM OR OS
L9 (     109558)SEA FILE=CAPLUS ABB=ON  PLU=ON  L7 OR L8
L10 (     10423)SEA FILE=CAPLUS ABB=ON  PLU=ON  METATHESIS
L11 (      1522)SEA FILE=CAPLUS ABB=ON  PLU=ON  L9 AND L10
L12        187 SEA FILE=CAPLUS ABB=ON  PLU=ON  L6 AND L11
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ACT LIGANDS/A

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L13          STR
L14 (      172349)SEA FILE=REGISTRY SSS FUL L13
L15        19361 SEA FILE=CAPLUS ABB=ON  PLU=ON  L14
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FILE 'REGISTRY' ENTERED AT 11:51:41 ON 30 DEC 2002

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      E 2-METHYLPROPEN/CN
L16      1 E6
      E PROPENE/CN
L17      1 E3
      E 2-METHYL-2-BUTENE/CN
L18      1 E3

```

FILE 'CAPLUS' ENTERED AT 11:53:23 ON 30 DEC 2002

```

L19      11943 L16
L20      32254 L17
L21      3494 L18
L22      513 L19 AND L20 AND L21

```

=> l22 and l9

```

      69421 RUTHENIUM
      20 RUTHENIUMS
      69421 RUTHENIUM
      (RUTHENIUM OR RUTHENIUMS)
      54409 RU
      168 RUS
      54555 RU
      (RU OR RUS)
      19678 OSMIUM
      5 OSMIUMS
      19679 OSMIUM
      (OSMIUM OR OSMIUMS)
      23390 OS
      69 OSES
      248 ORA
      17 ORAS
      12 OSAR
      75 OSSA
      23801 OS
      (OS OR OSES OR ORA OR ORAS OR OSAR OR OSSA)

```

L23 6 L22 AND L9

=> d l23 ti fbib abs

L23 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2002 ACS

TI Selected electrophilic addition reactions of representative acyclic alkenes

AN 1999:499827 CAPLUS

DN 131:228349

TI Selected electrophilic addition reactions of representative acyclic alkenes

AU Nelson, Donna J.

CS Department of Chemistry and Biochemistry, University of Oklahoma, Norman, OK, 73019, USA

SO Tetrahedron Letters (1999), 40(32), 5823-5826

CODEN: TELEAY; ISSN: 0040-4039

PB Elsevier Science Ltd.

DT Journal

LA English

AB In the reactions of dichlorocarbene, nitrosyl chloride, and osmium tetroxide with representative acyclic alkenes, alkene first ionization potentials (IP's) are correlated against log alkene relative reactivities (krel's). Each

reaction gives a single line of correlation, which includes all alkenes studied regardless of the degree of substitution.

RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d 123 2-6 ti

L23 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2002 ACS

TI Metathesis process and catalysts for the manufacture of propylene from mixtures of 1-butene, 2-butene and isobutene

L23 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2002 ACS

TI Toward an Understanding of the High Enantioselectivity in the Osmium-Catalyzed Asymmetric Dihydroxylation. 3. New Insights into Isomeric Forms of the Putative Osmaoxetane Intermediate

L23 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2002 ACS

TI Performance-oriented packaging standards; changes to classification, hazard communication, packaging and handling requirements based on UN standards and agency initiative

L23 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2002 ACS

TI Catalytic homologation of olefins to higher and lower olefins: a metathesis related reaction

L23 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2002 ACS

TI Oxidation catalyst

=> d 123 2,5 ti fbib abs

L23 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2002 ACS

TI Metathesis process and catalysts for the manufacture of propylene from mixtures of 1-butene, 2-butene and isobutene

AN 1999:265988 CAPLUS

DN 130:267876

TI Metathesis process and catalysts for the manufacture of propylene from mixtures of 1-butene, 2-butene and isobutene

IN Schwab, Peter; Schulz, Michael

PA BASF A.-G., Germany

SO Ger. Offen., 12 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19746040	A1	19990422	DE 1997-19746040	19971017
	TW 426651	B	20010321	TW 1998-87116887	19981012
				DE 1997-19746040A	19971017
	EP 915072	A1	19990512	EP 1998-119484	19981015
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	CA 2249019	AA	19990417	DE 1997-19746040A	19971017
				CA 1998-2249019	19981016
				DE 1997-19746040A	19971017
	JP 11217340	A2	19990810	JP 1998-295739	19981016
				DE 1997-19746040A	19971017
	CN 1218787	A	19990609	CN 1998-124565	19981017
				DE 1997-19746040A	19971017

AB Propene (I) is prepd in high yield and selectivity without the need for the use of excess quantities of ethylene in a process comprising: (A) the metathesis of mixts. of 1-butene, 2-butene, and isobutene in the presence of a catalyst system

contg. .gtoreq.1 of Group VIB and/or Group VIIB (e.g., Re2O7/Al2O3) and/or Group VIII element compd(s). forming a mixt. of propene, 2-pentenenes and 2-methyl-2-butene; (B) sepg. the I from the 2-pentenenes and 2-methyl-2-butene mixt.; (C)

subjecting the mixt. of 2-pentenenes and 2-methyl-2-butene to metathesis with ethylene to form a mixt. of I, 1-butene, and isobutene; (D) sepg. the I from the mixt. of 1-butene and isobutene; and recycling the 1-butene and isobutene to step A.

Process flow diagrams are presented.

L23 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2002 ACS

TI Catalytic homologation of olefins to higher and lower olefins: a metathesis related reaction

AN 1985:148672 CAPLUS

DN 102:148672

TI Catalytic homologation of olefins to higher and lower olefins: a metathesis related reaction

AU Leconte, M.; Theolier, A.; Basset, J. M.

CS Inst. Rech. Catal., CNRS, Villeurbanne, 69626, Fr.

SO Journal of Molecular Catalysis (1985), 28(1-3), 217-31

CODEN: JMCADS; ISSN: 0304-5102

DT Journal

LA English

AB With Fe-SiO₂, Ru-SiO₂ and Os-SiO₂ ethylene, propene, and isobutene disproportionated at 200-300.degree. to yield higher and lower olefins and methane. The reaction is catalytic when H₂ is present. The mechanism of C-C bond

formation in this reaction and in Fischer-Tropsch reactions using the above catalysts was the same.

=> logoff hold

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

17.96

78.94

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-1.86	-7.44

SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 11:58:14 ON 30 DEC 2002

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:sssptal623paz

PASSWORD:

* * * * * RECONNECTED TO STN INTERNATIONAL * * * * *
SESSION RESUMED IN FILE 'CAPLUS' AT 12:15:30 ON 30 DEC 2002
FILE 'CAPLUS' ENTERED AT 12:15:30 ON 30 DEC 2002
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COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	17.96	78.94

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-1.86	-7.44

=> trisubstituted (alkene or olefin)
MISSING OPERATOR 'BSTITUTED (ALKENE'
The search profile that was entered contains terms or
nested terms that are not separated by a logical operator.

=> (trisubstituted (alkene or olefin))
MISSING OPERATOR 'BSTITUTED (ALKENE'
The search profile that was entered contains terms or
nested terms that are not separated by a logical operator.

=> search (trisubstituted (alkene or olefin))
MISSING OPERATOR 'BSTITUTED (ALKENE'
The search profile that was entered contains terms or
nested terms that are not separated by a logical operator.

=> search (trisubstituted W (alkene or olefin))
MISSING OPERATOR 'W (ALKENE'
The search profile that was entered contains terms or
nested terms that are not separated by a logical operator.

=> trisubstituted alkene
6651 TRISUBSTITUTED
29334 ALKENE
71880 ALKENES
82217 ALKENE
(ALKENE OR ALKENES)
L24 239 TRISUBSTITUTED ALKENE
(TRISUBSTITUTED (W) ALKENE)

=> trisubstituted olefin
6651 TRISUBSTITUTED
84795 OLEFIN
85216 OLEFINS
130848 OLEFIN
(OLEFIN OR OLEFINS)
L25 329 TRISUBSTITUTED OLEFIN
(TRISUBSTITUTED(W)OLEFIN)

=> 124 or 125
L26 548 L24 OR L25

=> d his

(FILE 'HOME' ENTERED AT 10:51:22 ON 30 DEC 2002)

FILE 'CAPLUS' ENTERED AT 10:58:52 ON 30 DEC 2002
L1 1493 OLEFIN METATHESIS
L2 6651 TRISUBSTITUTED
L3 9 L1 AND L2

FILE 'STNGUIDE' ENTERED AT 11:39:33 ON 30 DEC 2002

FILE 'CAPLUS' ENTERED AT 11:40:12 ON 30 DEC 2002
ACT CATWLIGNDS/A

L4 STR
L5 (172349)SEA FILE=REGISTRY SSS FUL L4
L6 (19361)SEA FILE=CAPLUS ABB=ON PLU=ON L5
L7 (86501)SEA FILE=CAPLUS ABB=ON PLU=ON RUTHENIUM OR RU
L8 (33821)SEA FILE=CAPLUS ABB=ON PLU=ON OSMIUM OR OS
L9 (109558)SEA FILE=CAPLUS ABB=ON PLU=ON L7 OR L8
L10 (10423)SEA FILE=CAPLUS ABB=ON PLU=ON METATHESIS
L11 (1522)SEA FILE=CAPLUS ABB=ON PLU=ON L9 AND L10
L12 187 SEA FILE=CAPLUS ABB=ON PLU=ON L6 AND L11

ACT LIGANDS/A

L13 STR
L14 (172349)SEA FILE=REGISTRY SSS FUL L13
L15 19361 SEA FILE=CAPLUS ABB=ON PLU=ON L14

FILE 'REGISTRY' ENTERED AT 11:51:41 ON 30 DEC 2002
E 2-METHYLPROPEN/CN
L16 1 E6
E PROPENE/CN
L17 1 E3
E 2-METHYL-2-BUTENE/CN
L18 1 E3

FILE 'CAPLUS' ENTERED AT 11:53:23 ON 30 DEC 2002
L19 11943 L16
L20 32254 L17
L21 3494 L18
L22 513 L19 AND L20 AND L21
L23 6 L22 AND L9
L24 239 TRISUBSTITUTED ALKENE

L25 329 TRISUBSTITUTED OLEFIN
L26 548 L24 OR L25

=> 126 and 110
10376 METATHESIS
155 METATHESES
10423 METATHESIS
(METATHESIS OR METATHESES)

L27 14 L26 AND L10

=> d 127 1-14 ti

L27 ANSWER 1 OF 14 CAPLUS COPYRIGHT 2002 ACS
TI Preparation of ruthenium alkylidene complexes as catalysts for cross-**metathesis** reactions of functionalized and substituted olefins

L27 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2002 ACS
TI **Trisubstituted olefins** as 1,1-disubstituted olefin equivalents in cross-**metathesis**

L27 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2002 ACS
TI Callipeltoside A: Total Synthesis, Assignment of the Absolute and Relative Configuration, and Evaluation of Synthetic Analogues

L27 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2002 ACS
TI Synthesis of Symmetrical **Trisubstituted Olefins** by Cross **Metathesis**

L27 ANSWER 5 OF 14 CAPLUS COPYRIGHT 2002 ACS
TI Recyclable **metathesis** catalysts

L27 ANSWER 6 OF 14 CAPLUS COPYRIGHT 2002 ACS
TI Synthesis of functionalized and unfunctionalized olefins via cross and ring-closing **metathesis**

L27 ANSWER 7 OF 14 CAPLUS COPYRIGHT 2002 ACS
TI Exploiting the Reversibility of Olefin **Metathesis**. Syntheses of Macrocylic **Trisubstituted Alkenes** and (R,R)-(-)-Pyrenophorin

L27 ANSWER 8 OF 14 CAPLUS COPYRIGHT 2002 ACS
TI Synthesis of **trisubstituted olefins** by selective cross-**metathesis**.

L27 ANSWER 9 OF 14 CAPLUS COPYRIGHT 2002 ACS
TI Efficient and Recyclable Monomeric and Dendritic Ru-Based **Metathesis** Catalysts

L27 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2002 ACS
TI A series of ruthenium(II) ester-carbene complexes as olefin **metathesis** initiators: **metathesis** of acrylates

L27 ANSWER 11 OF 14 CAPLUS COPYRIGHT 2002 ACS
TI Synthesis of **Trisubstituted Alkenes** via Olefin Cross-**Metathesis**

L27 ANSWER 12 OF 14 CAPLUS COPYRIGHT 2002 ACS
TI A Hydrocarbon Structure Reactivity Study in ADMET Chemistry. 1. 1,1-Disubstituted and **Trisubstituted Olefins**

L27 ANSWER 13 OF 14 CAPLUS COPYRIGHT 2002 ACS
TI Directional specificity and stereoselectivity in the **metathesis** of a **trisubstituted olefin**

L27 ANSWER 14 OF 14 CAPLUS COPYRIGHT 2002 ACS

TI **Metathesis** of a cyclic **trisubstituted alkene**. Preparation of polyisoprene from 1-methylcyclobutene

=> d 127 1-14 ti fbib abs

L27 ANSWER 1 OF 14 CAPLUS COPYRIGHT 2002 ACS

TI Preparation of ruthenium alkylidene complexes as catalysts for cross-**metathesis** reactions of functionalized and substituted olefins

AN 2002:777864 CAPLUS

DN 137:295099

TI Preparation of ruthenium alkylidene complexes as catalysts for cross-**metathesis** reactions of functionalized and substituted olefins

IN Grubbs, Robert H.; Chatterjee, Arnab K.; Choi, Tae-Lim; Goldberg, Steven D.; Love, Jennifer A.; Morgan, John P.; Sanders, Daniel P.; Scholl, Matthias; Toste, F. Dean; Trnka, Tina M.

PA California Institute of Technology, USA

SO PCT Int. Appl., 68 pp.

CODEN: PIXXD2

DT Patent

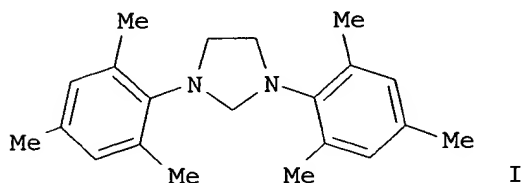
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002079126	A1	20021010	WO 2002-US10196	20020401
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	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
				US 2001-280462PP	20010330
				US 2001-280590PP	20010330
				US 2001-284213PP	20010416
				US 2001-285597PP	20010420
				US 2001-340588PP	20011214

OS MARPAT 137:295099

GI



AB The invention pertains to the use of Group 8 transition metal carbene complexes as catalysts for olefin cross-**metathesis** reactions. In particular, ruthenium and osmium alkylidene complexes substituted with an N-heterocyclic carbene

ligand are used to catalyze cross-**metathesis** reactions to provide a variety of substituted and functionalized olefins, including phosphonate-substituted olefins, directly halogenated olefins, 1,1,2-**trisubstituted**

olefins, and quaternary allylic olefins. The invention further provides a method for creating functional diversity using the aforementioned complexes to catalyze cross-**metathesis** reactions of a first olefinic reactant, which may or may not be substituted with a functional group, with each of a plurality of different olefinic reactants, which may or may not be substituted with functional groups, to give a plurality of structurally distinct olefinic products. The

methodol. of the invention is also useful in facilitating the stereoselective synthesis of 1,2-disubstituted olefins in the *cis* configuration. In a typical example of the synthesis of substituted allylic olefins, allyldiphenylphosphine oxide

and $\text{RuCl}_2(\text{:CHPh})(\text{IMesH}_2)(\text{PCy}_3)$ (synthetic prepn. given) [$\text{IMesH} = (\text{I})$] are added to *cis*-2-butene-1,4-diacetate to give 90% of the cross product.

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2002 ACS

TI **Trisubstituted olefins** as 1,1-disubstituted olefin equivalents in cross-**metathesis**

AN 2002:618650 CAPLUS

TI **Trisubstituted olefins** as 1,1-disubstituted olefin equivalents in cross-**metathesis**

AU Sanders, Daniel P.; Chatterjee, Arnab K.; Grubbs, Robert H.

CS Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA, 91125, USA

SO Abstracts of Papers, 224th ACS National Meeting, Boston, MA, United States, August 18-22, 2002 (2002), ORGN-256 Publisher: American Chemical Society, Washington, D. C.

CODEN: 69CZPZ

DT Conference; Meeting Abstract

LA English

AB **Trisubstituted olefins** can be synthesized via olefin cross-**metathesis** between terminal or internal olefins and **trisubstituted olefins**, such as 2-methyl-2-butene, using an N-heterocyclic

carbene-based ruthenium benzylidene catalyst. The moderate b.p. and moderate **metathesis** activity of the **trisubstituted olefins** allows these reactions to proceed in moderate to high yield at room temp. and atm.

pressures without solvent. Comparisons between the product distributions achieved with cross-**metathesis** using sym. 1,1-disubstituted olefins and **trisubstituted olefins** on a variety of substrates will be presented

along with their mechanistic implications.

L27 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2002 ACS

TI Callipeltoside A: Total Synthesis, Assignment of the Absolute and Relative Configuration, and Evaluation of Synthetic Analogues

AN 2002:585811 CAPLUS

DN 137:294812

TI Callipeltoside A: Total Synthesis, Assignment of the Absolute and Relative Configuration, and Evaluation of Synthetic Analogues

AU Trost, Barry M.; Gunzner, Janet L.; Dirat, Olivier; Rhee, Young H.

CS Department of Chemistry, Stanford University, Stanford, CA, 94305-5080, USA

SO Journal of the American Chemical Society (2002), 124(35), 10396-10415

CODEN: JACSAT; ISSN: 0002-7863

PB American Chemical Society
DT Journal
LA English
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The total synthesis of the novel antitumor agent callipeltoside A (I), as well as several analogs, is accomplished and allows assignment of the stereochem. not previously established. A convergent strategy is employed wherein the target is

dissected into three units-the core macrolactone II, the sugar callipeltose, and a cyclopropyl bearing chain. The strategy for the synthesis of the macrolactone derives from employment of diastereoselective aldol reactions that emanate from an

11 carbon piece. The stereochem. of the latter derives from the chiral pool and two asym. reactions-a ketone redn. using CBS-oxazaborolidine and a Pd catalyzed asym. allylic alkylation (AAA). The novelty of the latter protocol is its control

of regioselectivity as well as abs. configuration. The **trisubstituted olefin** is generated using an alkene-alkyne coupling to create a **trisubstituted olefin** with complete control of geometry. The

excellent chemo- and regioselectivity highlights the synthetic potential of this new ruthenium catalyzed process. The macrolactonization employs in situ formation of an acylketene generated by the thermolysis of a m-dioxolenone. Two

strategies evolved for attachment of the side chain-one based upon olefination and a second upon olefin **metathesis**. The higher efficiency of the latter makes it the method of choice. A novel one pot olefin **metathesis** -Takai

olefination protocol that should be broadly applicable is developed. The sugar is attached by a glycosylation by employing the O-trichloroacetimidate III. This route provided both C-13 epimers of the macrolactone by using either enantiomeric

ligand in the Pd AAA reaction. It also provided both trans-chlorocyclopropane diastereomers of I which allows the C-20 and C-21 configuration to be established as S and R, resp. The convergent nature of the synthesis in which the largest

piece, the macrolactone, require only 16 linear steps imparts utility to this strategy for the establishment of the structure-activity relationship. Initial biol. testing demonstrates the irrelevance of the chloro substituent and the necessity

of the sugar.

RE.CNT 66 THERE ARE 66 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2002 ACS

TI Synthesis of Symmetrical **Trisubstituted Olefins** by Cross **Metathesis**

AN 2002:335132 CAPLUS

DN 137:62904

TI Synthesis of Symmetrical **Trisubstituted Olefins** by Cross **Metathesis**

AU Chatterjee, Arnab K.; Sanders, Daniel P.; Grubbs, Robert H.

CS The Arnold and Mabel Beckman Laboratory of Chemical Synthesis, Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA, 91125, USA

SO Organic Letters (2002), 4(11), 1939-1942

CODEN: ORLEF7; ISSN: 1523-7060
PB American Chemical Society
DT Journal
LA English
OS CASREACT 137:62904

AB **Trisubstituted alkenes** have been prepd. via intermol. olefin cross-**metathesis** (CM) between .alpha.-olefins and sym. 1,1-disubstituted olefins using an imidazolylidene ruthenium benzylidene complex. Of particular interest is the synthesis of isoprenoid/prenyl groups by a simple solvent-free CM reaction with isobutylene. In addn., prenyl groups can also be installed by a cross-**metathesis** of 2-methyl-2-butene with a variety of .alpha.-olefins

at room temp. with low catalyst loadings.

RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 5 OF 14 CAPLUS COPYRIGHT 2002 ACS

TI Recyclable **metathesis** catalysts

AN 2002:142760 CAPLUS

DN 136:185768

TI Recyclable **metathesis** catalysts

IN Hoveyda, Amir H.; Kingsbury, Jason; Garber, Steven; Gray, Brian Lawrence; Fourkas, John T.

PA Trustees of Boston College, USA

SO PCT Int. Appl., 58 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002014376	A2	20020221	WO 2001-US24955	20010809
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
				US 2000-224305PP	20000810
				US 2001-264361PP	20010126
	AU 2001084773	A5	20020225	AU 2001-84773	20010809
				US 2000-224305PP	20000810
				US 2001-264361PP	20010126
				WO 2001-US24955W	20010809
	US 2002107138	A1	20020808	US 2001-925555	20010809
				US 2000-224305PP	20000810
				US 2001-264361PP	20010126

OS MARPAT 136:185768

AB Highly active, recoverable and recyclable transition metal-based **metathesis** catalysts and their organometallic complexes including dendrimeric complexes are disclosed, including a Ru complex bearing a 1,3-dimesityl-4,5-dihydroimidazol-

2-ylidene and styrenyl ether ligand. The heterocyclic ligand significantly enhances the catalytic activity, and the styrenyl ether allows for the easy recovery of the Ru complex. Derivatized catalysts capable of being immobilized on substrate

surfaces are also disclosed. The present catalysts can be used to catalyze ring-closing **metathesis** (RCM), ring-opening (ROM) and cross **metatheses** (CM) reactions, and promote the efficient formation of various **trisubstituted olefins** at ambient temp. in high yield.

L27 ANSWER 6 OF 14 CAPLUS COPYRIGHT 2002 ACS

TI Synthesis of functionalized and unfunctionalized olefins via cross and ring-closing **metathesis**

AN 2002:10410 CAPLUS

DN 136:70246

TI Synthesis of functionalized and unfunctionalized olefins via cross and ring-closing **metathesis**

IN Grubbs, Robert H.; Chatterjee, Arnab K.; Morgan, John P.; Scholl, Matthias; Choi, Tae-lim

PA California Institute of Technology, USA

SO PCT Int. Appl., 44 pp.

CODEN: PIXXD2

DT Patent

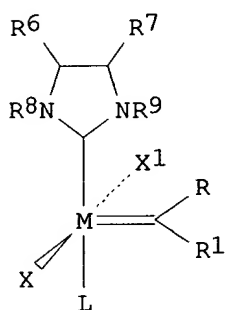
LA English

FAN.CNT 1

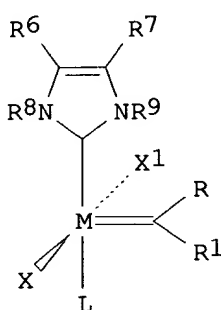
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002000590	A1	20020103	WO 2001-US20180	20010625
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 2002137978	A1	20020926	US 2000-213757PP	20000623
				US 2001-891144	20010625
				US 2000-213757PP	20000623

OS MARPAT 136:70246

GI



I



II

AB The cross-**metathesis** and ring-closing **metathesis** reactions between geminal disubstituted olefins and terminal olefins, use a Ru or Os metal carbene complex **metathesis** catalyst. Specifically, .alpha.-functionalized or unfunctionalized olefins are made via intermol. cross-**metathesis** and intramol. ring-closing **metathesis** using a Ru alkylidene complex. The catalysts have structures (I) or (II) (M = Ru or Os; X, X1 = anionic ligand; L =

neutral electron donor ligand; and, R, R1, R6, R7, R8, and R9 = H or a substituent selected from C1-C20 alkyl, C2-C20 alkenyl, C2-C20 alkynyl, aryl, C1-C20 carboxylate, C1-C20 alkoxy, C2-C20 alkenyloxy, C2-C20 alkynyloxy, aryloxy, C2-C20

alkoxycarbonyl, C1-C20 alkylthio, C1-C20 alkylsulfonyl and C1-C20 alkylsulfinyl).

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 7 OF 14 CAPLUS COPYRIGHT 2002 ACS

TI Exploiting the Reversibility of Olefin **Metathesis**. Syntheses of Macrocyclic **Trisubstituted Alkenes** and (R,R)-(-)-Pyrenophorin

AN 2001:27836 CAPLUS

DN 134:207635

TI Exploiting the Reversibility of Olefin **Metathesis**. Syntheses of Macrocyclic **Trisubstituted Alkenes** and (R,R)-(-)-Pyrenophorin

AU Fuerstner, Alois; Thiel, Oliver R.; Ackermann, Lutz

CS Max-Planck-Institut fuer Kohlenforschung, Muelheim/Ruhr, D-45470, Germany

SO Organic Letters (2001), 3(3), 449-451

CODEN: ORLEF7; ISSN: 1523-7060

PB American Chemical Society

DT Journal

LA English

OS CASREACT 134:207635

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The formation of the trisubstituted cycloalkene I by RCM (ring-closing **metathesis**) of diene II proceeds via an acyclic dimer, thus demonstrating the ready reversibility of olefin **metathesis** if catalyzed by "second generation" ruthenium carbene complexes. When applied to acrylate III, these catalysts trigger a cyclooligomerization process that evolves with time and serves as key step en route to the lactide antibiotic (-)-pyrenophorin (IV).

RE.CNT 71 THERE ARE 71 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 8 OF 14 CAPLUS COPYRIGHT 2002 ACS

TI Synthesis of **trisubstituted olefins** by selective cross-**metathesis**.

AN 2000:796557 CAPLUS

TI Synthesis of **trisubstituted olefins** by selective cross-**metathesis**.

AU Chatterjee, A. K.; Morgan, J. P.; Grubbs, R. H.

CS Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA, 91125, USA

SO Abstr. Pap. - Am. Chem. Soc. (2000), 220th, ORGN-057

CODEN: ACSRAL; ISSN: 0065-7727

PB American Chemical Society

DT Journal; Meeting Abstract

LA English

AB **Trisubstituted alkenes** have been prepd. for the first time by intermol. olefin cross-**metathesis**, using 1,3-dimesityl-4,5-dihydro-imidazol-2-ylidene ruthenium alkylidene complexes in good yields with moderate E

selectivity. In addn., protected alcs. near the geminal disubstituted olefin improves reactivity for cross-**metathesis**. In addn., the novel participation for a,b-unsatd. ester, aldehyde and ketone functionalities in cross-

metathesis, providing trisubstituted products in excellent yield and stereoselectivity will be discussed. Finally, a variety of substitution patterns in the geminal position will be presented.

L27 ANSWER 9 OF 14 CAPLUS COPYRIGHT 2002 ACS

TI Efficient and Recyclable Monomeric and Dendritic Ru-Based **Metathesis** Catalysts

AN 2000:556662 CAPLUS

DN 133:296007

TI Efficient and Recyclable Monomeric and Dendritic Ru-Based **Metathesis** Catalysts

AU Garber, Steven B.; Kingsbury, Jason S.; Gray, Brian L.; Hoveyda, Amir H.

CS Department of Chemistry Merkert Chemistry Center, Boston College, Chestnut Hill, MA, 02467, USA

SO Journal of the American Chemical Society (2000), 122(34), 8168-8179

CODEN: JACSAT; ISSN: 0002-7863

PB American Chemical Society

DT Journal

LA English

OS CASREACT 133:296007

AB Several highly active, recoverable and recyclable Ru-based **metathesis** catalysts are presented. The crystal structure of the Ru complex (I) bearing a 1,3-dimesityl-4,5-dihydroimidazol-2-ylidene and styrenyl ether ligand is disclosed.

The heterocyclic ligand significantly enhances the catalytic activity, and the styrenyl ether allows for the easy recovery of the Ru complex. Catalyst I promotes ring-closing **metathesis** (RCM) and the efficient formation of various

trisubstituted olefins at ambient temp. in high yield within 2 h; the catalyst is obtained in >95% yield after silica gel chromatog. and can be used directly in subsequent reactions. Tetrasubstituted olefins can also be synthesized by RCM reactions catalyzed by I. In addn., the synthesis and catalytic activities of two dendritic and recyclable Ru-based complexes are disclosed. Examples involving catalytic ring-closing, ring-opening, and cross

metatheses are presented where, unlike monomer I, the dendritic catalyst can be readily recovered.

RE.CNT 105 THERE ARE 105 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2002 ACS.

TI A series of ruthenium(II) ester-carbene complexes as olefin **metathesis** initiators: **metathesis** of acrylates

AN 2000:443431 CAPLUS

DN 133:207970

TI A series of ruthenium(II) ester-carbene complexes as olefin **metathesis** initiators: **metathesis** of acrylates

AU Ulman, M.; Belderrain, T. R.; Grubbs, R. H.

CS Division of Chemistry and Chemical Engineering, The Arnold and Mabel Beckman Laboratory of Chemical Synthesis, California Institute of Technology, Pasadena, CA, 91125, USA

SO Tetrahedron Letters (2000), 41(24), 4689-4693

CODEN: TELEAY; ISSN: 0040-4039

PB Elsevier Science Ltd.

DT Journal

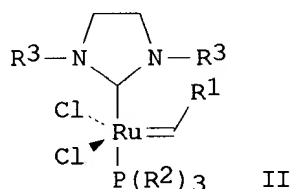
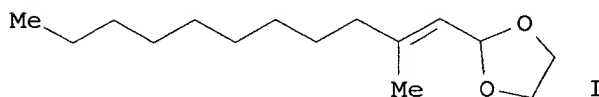
LA English

AB A series of ester-carbene complexes, $\text{Cl}_2(\text{Cy}_3\text{P})_2\text{Ru}:\text{CHZ}$ ($\text{Z} = \text{CO}_2\text{R}$, $\text{R} = \text{Me}$, *p*-tolyl, *t*-Bu, *i*Pr, cyclohexyl, 1-adamantyl, Ph), were synthesized. These complexes were highly active for the **metathesis** of olefinic substrates, including

acrylates and **trisubstituted olefins**. In addn., the ester-carbene moiety is thermodynamically high in energy. As a result, these complexes react to ring-open cyclohexene by **metathesis** to alleviate the thermodyn. strain of the ester-carbene ligand.

RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 11 OF 14 CAPLUS COPYRIGHT 2002 ACS
TI Synthesis of **Trisubstituted Alkenes** via Olefin Cross-**Metathesis**
AN 1999:696959 CAPLUS
DN 132:78128
TI Synthesis of **Trisubstituted Alkenes** via Olefin Cross-**Metathesis**
AU Chatterjee, Arnab K.; Grubbs, Robert H.
CS Arnold and Mabel Beckman Laboratory of Chemical Synthesis Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA, 91125, USA
SO Organic Letters (1999), 1(11), 1751-1753
CODEN: ORLEF7; ISSN: 1523-7060
PB American Chemical Society
DT Journal
LA English
OS CASREACT 132:78128
GI



AB **Trisubstituted alkenes**, e.g. I, have been prep'd. for the first time via intermol. olefin cross-**metathesis** in good yields with moderate E selectivity using 1,3-dimesityl-4,5-dihydroimidazol-2-ylidene ruthenium alkylidene complexes II [R1 = Ph, (Me)2C=CH; R2 = cyclohexyl; R3 = 2,4,6-(Me)3C6H2]. In addn., protected alcs. near the geminal disubstituted olefin improve reactivity for cross-**metathesis**.

RE.CNT 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 12 OF 14 CAPLUS COPYRIGHT 2002 ACS
TI A Hydrocarbon Structure Reactivity Study in ADMET Chemistry. 1.
1,1-Disubstituted and **Trisubstituted Olefins**
AN 1995:592017 CAPLUS
DN 123:10060
TI A Hydrocarbon Structure Reactivity Study in ADMET Chemistry. 1.
1,1-Disubstituted and **Trisubstituted Olefins**
AU Konzelman, J.; Wagener, K. B.

CS Department of Chemistry, University of Florida, Gainesville, FL,
32611-7200, USA

SO Macromolecules (1995), 28(13), 4686-92
CODEN: MAMOBX; ISSN: 0024-9297

PB American Chemical Society

DT Journal

LA English

AB The ADMET chem. of 1,1-disubstituted, 1,2-disubstituted, and **trisubstituted alkenes** has been examd. in the presence of the Lewis acid free **metathesis** catalysts $M(CHR')(NAr)(OR)_2$ where $M = W$ (1) or Mo (2), $Ar = 2,6-(i-Pr)_2C_6H_3$, $R' = CMe_2Ph$, and $R = CMe(CF_3)_2$, and the specific interaction of each olefin with the catalysts has been monitored by 1H NMR. Successful **metathesis** depends on both the substitution pattern of the olefin and the

catalyst employed. The molybdenum-based catalyst promotes the **metathesis** of 1,1-disubstituted alkenes but only through cross-**metathesis** with internal olefins which are no greater than disubstituted. The tungsten-based catalyst is unable to promote **metathesis** chem. with these substituted olefins.

L27 ANSWER 13 OF 14 CAPLUS COPYRIGHT 2002 ACS

TI Directional specificity and stereoselectivity in the **metathesis** of a **trisubstituted olefin**

AN 1977:4843 CAPLUS

DN 86:4843

TI Directional specificity and stereoselectivity in the **metathesis** of a **trisubstituted olefin**

AU Lee, Steven J.; McGinnis, James; Katz, Thomas J.

CS Dep. Chem., Columbia Univ., New York, NY, USA

SO Journal of the American Chemical Society (1976), 98(24), 7818-19
CODEN: JACSAT; ISSN: 0002-7863

DT Journal

LA English

AB 1-Methyl-trans-cyclooctene and (diphenylcarbene)pentacarbonyltungsten in an evacuated ampule at 50.degree. for 23 hr gave E- and Z-isomers of poly(1-methyl-1-octene-1,8-diyl). The percentages of E and Z isomers measured by the intensities of

the ^{13}C NMR signals was 76 .+- . 1% E and 24 .+- . 1% Z. A mechanism involving a chain reaction in which a metal-carbene is the chain carrier is postulated.

L27 ANSWER 14 OF 14 CAPLUS COPYRIGHT 2002 ACS

TI **Metathesis** of a cyclic **trisubstituted alkene**. Preparation of polyisoprene from 1-methylcyclobutene

AN 1976:106111 CAPLUS

DN 84:106111

TI **Metathesis** of a cyclic **trisubstituted alkene**. Preparation of polyisoprene from 1-methylcyclobutene

AU Katz, Thomas J.; McGinnis, James; Altus, Craig

CS Dep. Chem., Columbia Univ., New York, NY, USA

SO Journal of the American Chemical Society (1976), 98(2), 606-8
CODEN: JACSAT; ISSN: 0002-7863

DT Journal

LA English

AB **Metathesis** of 1-methylcyclobutene [1489-60-7] in the presence of (diphenylcarbene)pentacarbonyl tungsten [50276-12-5] for 18 hr at 50.degree. gave a polymer which was shown by NMR to be mainly polyisoprene [9003-31-0] contg. 84-7% cis

and 13-16% trans units. In addn. to 2-methyl-2-butene units, the polymer also contained 2-butene and 2,3-dimethyl-2-butene units. A mixt. of $WC16$ [13283-01-7] and $BuLi$ [109-72-8] also catalyzed the **metathesis**, but gave a less pure

product with about the same stereoselectivity.

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COST IN U.S. DOLLARS

SINCE FILE

TOTAL

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SESSION

FULL ESTIMATED COST

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136.56

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

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NEWS 3 Apr 09 BEILSTEIN: Reload and Implementation of a New Subject Area
NEWS 4 Apr 09 ZDB will be removed from STN
NEWS 5 Apr 19 US Patent Applications available in IFICDB, IFIPAT, and
IFIUDB
NEWS 6 Apr 22 Records from IP.com available in CAPLUS, HCAPLUS, and
ZCAPLUS
NEWS 7 Apr 22 BIOSIS Gene Names now available in TOXCENTER
NEWS 8 Apr 22 Federal Research in Progress (FEDRIP) now available
NEWS 9 Jun 03 New e-mail delivery for search results now available
NEWS 10 Jun 10 MEDLINE Reload
NEWS 11 Jun 10 PCTFULL has been reloaded
NEWS 12 Jul 02 FOREGE no longer contains STANDARDS file segment
NEWS 13 Jul 22 USAN to be reloaded July 28, 2002;
saved answer sets no longer valid
NEWS 14 Jul 29 Enhanced polymer searching in REGISTRY
NEWS 15 Jul 30 NETFIRST to be removed from STN
NEWS 16 Aug 08 CANCERLIT reload
NEWS 17 Aug 08 PHARMAMarketLetter(PHARMAML) - new on STN
NEWS 18 Aug 08 NTIS has been reloaded and enhanced
NEWS 19 Aug 19 Aquatic Toxicity Information Retrieval (AQUIRE)
now available on STN
NEWS 20 Aug 19 IFIPAT, IFICDB, and IFIUDB have been reloaded
NEWS 21 Aug 19 The MEDLINE file segment of TOXCENTER has been reloaded
NEWS 22 Aug 26 Sequence searching in REGISTRY enhanced
NEWS 23 Sep 03 JAPIO has been reloaded and enhanced
NEWS 24 Sep 16 Experimental properties added to the REGISTRY file

NEWS 25 Sep 16 Indexing added to some pre-1967 records in CA/CAPLUS
 NEWS 26 Sep 16 CA Section Thesaurus available in CAPLUS and CA
 NEWS 27 Oct 01 CASREACT Enriched with Reactions from 1907 to 1985
 NEWS 28 Oct 21 EVENTLINE has been reloaded
 NEWS 29 Oct 24 BEILSTEIN adds new search fields
 NEWS 30 Oct 24 Nutraceuticals International (NUTRACEUT) now available on STN
 NEWS 31 Oct 25 MEDLINE SDI run of October 8, 2002
 NEWS 32 Nov 18 DKILIT has been renamed APOLLIT
 NEWS 33 Nov 25 More calculated properties added to REGISTRY
 NEWS 34 Dec 02 TIBKAT will be removed from STN
 NEWS 35 Dec 04 CSA files on STN
 NEWS 36 Dec 17 PCTFULL now covers WP/PCT Applications from 1978 to date
 NEWS 37 Dec 17 TOXCENTER enhanced with additional content
 NEWS 38 Dec 17 Adis Clinical Trials Insight now available on STN
 NEWS 39 Dec 30 ISMEC no longer available

NEWS EXPRESS December 31 CURRENT WINDOWS VERSION IS V6.01a,
 CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),
 AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002

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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 07:36:23 ON 02 JAN 2003

=>

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'STNGUIDE' ENTERED AT 07:36:36 ON 02 JAN 2003

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FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: Dec 20, 2002 (20021220/UP).

=>

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.06	0.27

FILE 'HOME' ENTERED AT 07:36:44 ON 02 JAN 2003

=>

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.48

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FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: Dec 20, 2002 (20021220/UP).

=>

NAME

CREATED

NOTES/TITLE

ALKYLATIN/L	13 DEC 2001	9 L-NUMBERS
CATWLIGNDS/A	TEMP	187 ANSWERS IN FILE CAPLUS
ESTERODOR/L	05 SEP 2002	42 L-NUMBERS
INDIUMCL3/A	30 MAY 2001	1 ANSWER IN FILE REGISTRY
LIGANDS/A	TEMP	19361 ANSWERS IN FILE CAPLUS
LTWENTAUGFOR/A	04 AUG 2001	72 ANSWERS IN FILE CAPLUS
METATHESIS/L	TEMP	9 L-NUMBERS
NEOTAMECRYST/A	24 APR 2001	59 ANSWERS IN FILE CAPLUS
NVLARMFULGEN/A	19 APR 2001	196 ANSWERS IN FILE REGISTRY
POHBENZALDEH/A	10 JUL 2001	5519 ANSWERS IN FILE CAPLUS
PROSTACMPD15/A	01 AUG 2001	34 ANSWERS IN FILE CAPLUS
STILLEAPP/L	07 JAN 2002	17 L-NUMBERS
TWOAMINOPOLY/Q	16 APR 2001	UPLOADED STRUCTURE

=>

NO SAVED SDI REQUESTS

=>

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.06

0.54

FILE 'CAPLUS' ENTERED AT 07:37:31 ON 02 JAN 2003

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FILE COVERS 1907 - 2 Jan 2003 VOL 138 ISS 1

FILE LAST UPDATED: 1 Jan 2003 (20030101/ED)

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=>

```
L1          STR
L2 (    172349)SEA FILE=REGISTRY SSS FUL L1
L3 (    19361)SEA FILE=CAPLUS ABB=ON  PLU=ON  L2
L4 (    86501)SEA FILE=CAPLUS ABB=ON  PLU=ON  RUTHENIUM OR RU
L5 (    33821)SEA FILE=CAPLUS ABB=ON  PLU=ON  OSMIUM OR OS
L6 (   109558)SEA FILE=CAPLUS ABB=ON  PLU=ON  L4 OR L5
L7 (    10423)SEA FILE=CAPLUS ABB=ON  PLU=ON  METATHESIS
L8 (    1522)SEA FILE=CAPLUS ABB=ON  PLU=ON  L6 AND L7
L9 (    187)SEA FILE=CAPLUS ABB=ON  PLU=ON  L3 AND L8
```

<-----User Break----->

=>

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.83	1.37

FILE 'STNGUIDE' ENTERED AT 07:38:26 ON 02 JAN 2003
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FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Dec 20, 2002 (20021220/UP).

=>

NAME	CREATED	NOTES/TITLE
ALKYLATIN/L	13 DEC 2001	9 L-NUMBERS
CATWLIGNDS/A	TEMP	187 ANSWERS IN FILE CAPLUS
ESTERODOR/L	05 SEP 2002	42 L-NUMBERS
INDIUMCL3/A	30 MAY 2001	1 ANSWER IN FILE REGISTRY
LIGANDS/A	TEMP	19361 ANSWERS IN FILE CAPLUS
LTWENTAUFGFOR/A	04 AUG 2001	72 ANSWERS IN FILE CAPLUS
METATHESIS/L	TEMP	9 L-NUMBERS
NEOTAMECRYST/A	24 APR 2001	59 ANSWERS IN FILE CAPLUS
NVLARMFULGEN/A	19 APR 2001	196 ANSWERS IN FILE REGISTRY
POHBENZALDEH/A	10 JUL 2001	5519 ANSWERS IN FILE CAPLUS
PROSTACMPD15/A	01 AUG 2001	34 ANSWERS IN FILE CAPLUS
STILLEAPP/L	07 JAN 2002	17 L-NUMBERS
TWOAMINOPOLY/Q	16 APR 2001	UPLOADED STRUCTURE

=>

NO SAVED SDI REQUESTS

=>

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
----------------------	------------------	---------------

FULL ESTIMATED COST

0.06

1.43

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FILE LAST UPDATED: 1 Jan 2003 (20030101/ED)

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=>

```
L13          STR
L14 ( 172349)SEA FILE=REGISTRY SSS FUL L13
L15 ( 19361)SEA FILE=CAPLUS ABB=ON  PLU=ON  L14
L16 ( 86501)SEA FILE=CAPLUS ABB=ON  PLU=ON  RUTHENIUM OR RU
L17 ( 33821)SEA FILE=CAPLUS ABB=ON  PLU=ON  OSMIUM OR OS
L18 ( 109558)SEA FILE=CAPLUS ABB=ON  PLU=ON  L16 OR L17
L19 ( 10423)SEA FILE=CAPLUS ABB=ON  PLU=ON  METATHESIS
L20 ( 1522)SEA FILE=CAPLUS ABB=ON  PLU=ON  L18 AND L19
L21      187 SEA FILE=CAPLUS ABB=ON  PLU=ON  L15 AND L20
```

=> d his

(FILE 'HOME' ENTERED AT 07:36:23 ON 02 JAN 2003)

FILE 'STNGUIDE' ENTERED AT 07:36:36 ON 02 JAN 2003

FILE 'HOME' ENTERED AT 07:36:44 ON 02 JAN 2003

FILE 'STNGUIDE' ENTERED AT 07:36:48 ON 02 JAN 2003

FILE 'CAPLUS' ENTERED AT 07:37:31 ON 02 JAN 2003

ACT CATWLIGNDS/A

```
-----
L1          STR
L2 ( 172349)SEA FILE=REGISTRY SSS FUL L1
L3 ( 19361)SEA FILE=CAPLUS ABB=ON  PLU=ON  L2
L4 ( 86501)SEA FILE=CAPLUS ABB=ON  PLU=ON  RUTHENIUM OR RU
L5 ( 33821)SEA FILE=CAPLUS ABB=ON  PLU=ON  OSMIUM OR OS
L6 ( 109558)SEA FILE=CAPLUS ABB=ON  PLU=ON  L4 OR L5
```

L7 (10423)SEA FILE=CAPLUS ABB=ON PLU=ON METATHESIS
 L8 (1522)SEA FILE=CAPLUS ABB=ON PLU=ON L6 AND L7
 L9 187 SEA FILE=CAPLUS ABB=ON PLU=ON L3 AND L8

 ACT LIGANDS/A

L10 STR
 L11 (172349)SEA FILE=REGISTRY SSS FUL L10
 L12 19361 SEA FILE=CAPLUS ABB=ON PLU=ON L11

FILE 'STNGUIDE' ENTERED AT 07:38:26 ON 02 JAN 2003

FILE 'CAPLUS' ENTERED AT 07:38:43 ON 02 JAN 2003
 ACT CATWLIGNDS/A

L13 STR
 L14 (172349)SEA FILE=REGISTRY SSS FUL L13
 L15 (19361)SEA FILE=CAPLUS ABB=ON PLU=ON L14
 L16 (86501)SEA FILE=CAPLUS ABB=ON PLU=ON RUTHENIUM OR RU
 L17 (33821)SEA FILE=CAPLUS ABB=ON PLU=ON OSMIUM OR OS
 L18 (109558)SEA FILE=CAPLUS ABB=ON PLU=ON L16 OR L17
 L19 (10423)SEA FILE=CAPLUS ABB=ON PLU=ON METATHESIS
 L20 (1522)SEA FILE=CAPLUS ABB=ON PLU=ON L18 AND L19
 L21 187 SEA FILE=CAPLUS ABB=ON PLU=ON L15 AND L20

=> file caplus		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.83	2.26

FILE 'CAPLUS' ENTERED AT 07:39:37 ON 02 JAN 2003
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=> cross metathesis
403857 CROSS
12275 CROSSES
414485 CROSS
(CROSS OR CROSSES)
0 METAHTHESIS
L22 0 CROSS METAHTHESIS
(CROSS (W)METAHTHESIS)

=> cross metathesis
403857 CROSS
12275 CROSSES
414485 CROSS
(CROSS OR CROSSES)
10378 METATHESIS
155 METATHESES
10425 METATHESIS
(METATHESIS OR METATHESES)
L23 330 CROSS METATHESIS
(CROSS (W)METATHESIS)

=> styrene
234080 STYRENE
4068 STYRENES
L24 235246 STYRENE
(STYRENE OR STYRENES)

=> l23 and l24
L25 33 L23 AND L24

=> l21 and l25
L26 6 L21 AND L25

=> d l26 1-6 ti

L26 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2003 ACS
TI A Recyclable Chiral **Ru** Catalyst for Enantioselective Olefin
Metathesis. Efficient Catalytic Asymmetric Ring-Opening/
Cross Metathesis in Air

L26 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2003 ACS
TI **Cross-Metathesis** of Vinylsilanes with Allyl Alkyl
Ethers Catalyzed by **Ruthenium**-Carbene Complexes

L26 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2003 ACS
TI Preparation and Activity of Recyclable Polymer-Supported **Ruthenium**
Olefin **Metathesis** Catalysts

L26 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2003 ACS
TI Synthesis of functionalized and unfunctionalized olefins via cross and
ring-closing **metathesis**

L26 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2003 ACS
TI Synthesis of vinyl- and allylphosphonates by olefin **cross-**
metathesis

L26 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2003 ACS
TI Synthesis of .alpha.,.beta.-unsaturated amides by olefin **cross-**
metathesis

=> d 126 1-6 ti fbib abs

L26 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2003 ACS
TI A Recyclable Chiral **Ru** Catalyst for Enantioselective Olefin
Metathesis. Efficient Catalytic Asymmetric Ring-Opening/
Cross Metathesis in Air
AN 2002:287544 CAPLUS
DN 137:46783
TI A Recyclable Chiral **Ru** Catalyst for Enantioselective Olefin
Metathesis. Efficient Catalytic Asymmetric Ring-Opening/
Cross Metathesis in Air
AU Van Veldhuizen, Joshua J.; Garber, Steven B.; Kingsbury, Jason S.;
Hoveyda, Amir H.
CS Department of Chemistry, Merkert Chemistry Center, Boston College,
Chestnut Hill, MA, 02467, USA
SO Journal of the American Chemical Society (2002), 124(18), 4954-4955
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English
OS CASREACT 137:46783
AB The synthesis and structure of a new chiral bidentate imidazolinylidene
ligand and a derived chiral **Ru**-based carbene are disclosed. The
Ru complex is stereogenic at the metal center; it can be prepd. in
>98% diastereoselectivity and purified by silica gel chromatog. with
undistd. solvents. The air-stable **Ru** complex efficiently
catalyzes ring-closing and ring-opening **metathesis** and is
recyclable. The chiral complex is highly effective (0.5-10. mol %
loading)
in promoting enantioselective ring-opening/**cross**
metathesis reactions (up to >98% ee). These enantioselective
transformations can be effected in air, with unpurified solvent and with
substrates that would only polymerize with Mo-based catalysts.
RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2003 ACS
TI **Cross-Metathesis** of Vinylsilanes with Allyl Alkyl
Ethers Catalyzed by **Ruthenium**-Carbene Complexes
AN 2002:101824 CAPLUS
DN 136:294935
TI **Cross-Metathesis** of Vinylsilanes with Allyl Alkyl
Ethers Catalyzed by **Ruthenium**-Carbene Complexes
AU Kujawa-Welten, Malgorzata; Pietraszuk, Cezary; Marciniak, Bogdan
CS Faculty of Chemistry, Adam Mickiewicz University, Poznan, 60-780, Pol.
SO Organometallics (2002), 21(5), 840-845
CODEN: ORGND7; ISSN: 0276-7333
PB American Chemical Society
DT Journal
LA English
OS CASREACT 136:294935
AB The **cross-metathesis** of vinyltrialkoxy- and
vinyltrisiloxysilanes as well as divinyltetraethoxydisiloxane with
various
allyl alkyl ethers catalyzed by $\text{Cl}_2(\text{PCy}_3)_2\text{Ru}(\text{:CHPh})$ (I) is presented.
The
reaction is accompanied by self-**metathesis** of allyl alkyl

ethers. The catalytic examn. presented in this paper has allowed the authors to develop optimum conditions for selective synthesis of 1-silyl-3-alkoxy-propenes (R'O)3SiCH:CHOR (R = Et, Bu, Cy, Ph, PhCH2, glycidyl, Me3Si, R' = Me, Et, SiMe3) with high preference of the E-isomers

(E/Z > 7:1). This allowed the selective isolation of the E-isomer. A stoichiometric study of I with substrates was carried out. The results are discussed on the basis of a metallacarbene mechanism.

RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2003 ACS

TI Preparation and Activity of Recyclable Polymer-Supported **Ruthenium** Olefin **Metathesis** Catalysts

AN 2002:52088 CAPLUS

DN 136:247686

TI Preparation and Activity of Recyclable Polymer-Supported **Ruthenium** Olefin **Metathesis** Catalysts

AU Jafarpour, Laleh; Heck, Marie-Pierre; Baylon, Christophe; Lee, Han Man; Mioskowski, Charles; Nolan, Steven P.

CS Department of Chemistry, University of New Orleans, New Orleans, LA, 70148, USA

SO Organometallics (2002), 21(4), 671-679

CODEN: ORGND7; ISSN: 0276-7333

PB American Chemical Society

DT Journal

LA English

OS CASREACT 136:247686

AB The **Ru** catalysts (PCy3)2Ru(:C(H)Ph)Cl2 (1), (PCy3)**Ru**(IMes)(:C(H)Ph)Cl2 (2), (PCy3)**Ru**(SIMes)(:C(H)Ph)Cl2 (3), (PCyp3)**Ru**(IMes)(:CHCH:CM₂)Cl2 (4), and (PCy3)**Ru**(IPr)(3-phenylinden-1-ylidene)Cl2 (5), where IMes = 1,3-bis(2,4,6-trimethylphenyl)imidazol-2-ylidene, SIMes = 1,3-bis(2,4,6-trimethylphenyl)-4,5-dihydroimidazol-2-ylidene, IPr = 1,3-bis(2,6-diisopropylphenyl)imidazol-2-ylidene, Cy = cyclohexyl, and Cyp = cyclopentyl, were grafted to polymer supports and are effective heterogeneous catalysts for ring-closing **metathesis**. In some cases, they are recyclable, show comparable reactivity to their homogeneous counterparts, tolerate functional groups, and perform very well with unsubstituted dienes.

RE.CNT 72 THERE ARE 72 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2003 ACS

TI Synthesis of functionalized and unfunctionalized olefins via cross and ring-closing **metathesis**

AN 2002:10410 CAPLUS

DN 136:70246

TI Synthesis of functionalized and unfunctionalized olefins via cross and ring-closing **metathesis**

IN Grubbs, Robert H.; Chatterjee, Arnab K.; Morgan, John P.; Scholl, Matthias; Choi, Tae-lim

PA California Institute of Technology, USA

SO PCT Int. Appl., 44 pp.

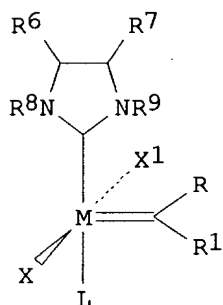
CODEN: PIXXD2

DT Patent

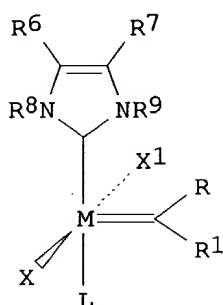
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002000590	A1	20020103	WO 2001-US20180	20010625
	W:				
	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CO, CR,				
	CU, CZ, DE, DK, DM, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,				
	ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,				
	LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE,				
	SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA,				
	ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW:				
	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,				
	DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,				
	BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
				US 2000-213757PP	20000623
	US 2002137978	A1	20020926	US 2001-891144	20010625
				US 2000-213757PP	20000623
OS	MARPAT 136:70246				
GI					



I



II

AB The **cross-metathesis** and ring-closing **metathesis** reactions between geminal disubstituted olefins and terminal olefins, use a **Ru** or **Os** metal carbene complex **metathesis** catalyst. Specifically, .alpha.-functionalized or unfunctionalized olefins are made via intermol. **cross-metathesis** and intramol. ring-closing **metathesis** using a **Ru** alkylidene complex. The catalysts have structures (I) or (II) (M = **Ru** or **Os**; X, X1 = anionic ligand; L = neutral electron donor ligand; and, R, R1, R6, R7, R8, and R9 = H or a substituent selected from C1-C20 alkyl, C2-C20 alkenyl, C2-C20 alkynyl, aryl, C1-C20 carboxylate, C1-C20 alkoxy, C2-C20 alkenyloxy, C2-C20 alkynyloxy, aryloxy, C2-C20 alkoxycarbonyl, C1-C20 alkylthio, C1-C20 alkylsulfonyl and C1-C20 alkylsulfinyl).

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2003 ACS

TI Synthesis of vinyl- and allylphosphonates by olefin **cross-metathesis**

AN 2001:462195 CAPLUS

DN 135:195615

TI Synthesis of vinyl- and allylphosphonates by olefin **cross-metathesis**

AU Chatterjee, Arnab K.; Choi, Tae-Lim; Grubbs, Robert H.

CS Arnold and Mabel Beckman Laboratories of Chemical Synthesis, Division of
Chemistry and Chemical Engineering, California Institute of Technology,
Pasadena, CA, 91125, USA
SO Synlett (2001), (Spec. Issue), 1034-1037
CODEN: SYNLES; ISSN: 0936-5214
PB Georg Thieme Verlag
DT Journal
LA English
OS CASREACT 135:195615
AB Substituted allyl and vinyl phosphonates were prep'd. for the 1st time
from

(EtO)2P(O)CH:CH2 and (EtO)2P(O)CH2CH:CH2 via intermol. olefin
cross-metathesis by using a 1,3-dimesityl-4,5-
dihydroimidazol-2-ylidene **Ru** alkylidene complex in good (73-97%)
yields. A variety of terminal olefins, **styrenes**, and geminally
disubstituted olefins were successfully employed in these reactions. In
addn., **cross-metathesis** of vinylphosphonates provide
exclusive E olefin stereochem.

RE.CNT 74 THERE ARE 74 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2003 ACS

TI Synthesis of .alpha.,.beta.-unsaturated amides by olefin **cross-
metathesis**

AN 2001:284451 CAPLUS

DN 135:77120

TI Synthesis of .alpha.,.beta.-unsaturated amides by olefin **cross-
metathesis**

AU Choi, Tae-Lim; Chatterjee, Arnab K.; Grubbs, Robert H.

CS Arnold and Mabel Laboratories of Chemical Synthesis Division of Chemistry
and Chemical Engineering, California Institute of Technology, Pasadena,
CA, 91125, USA

SO Angewandte Chemie, International Edition (2001), 40(7), 1277-1279
CODEN: ACIEF5; ISSN: 1433-7851

PB Wiley-VCH Verlag GmbH

DT Journal

LA English

AB We report a versatile cross-coupling reaction of various
.alpha.,.beta.-unsatd. amides with terminal olefins or **styrene**,
and show that the **cross-metathesis** efficiency is
affected by the substituents on the amide nitrogen. .alpha.-.beta.-
Unsatd. amides are excellent **cross-metathesis** partners
with terminal olefins and **styrene** in presence of a
ruthenium catalyst contg. a 1,3-dimesityl-4,5-dihydroimidazol-2-
ylidene ligand. This method allows for an efficient one-step formation
of

functionalized .alpha.,.beta.-unsatd. amides under mild conditions.

RE.CNT 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> logoff hold

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
27.01	29.27

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
-3.91	-3.91

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SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 07:42:23 ON 02 JAN 2003

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PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

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NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2	Apr 08	"Ask CAS" for self-help around the clock
NEWS	3	Apr 09	BEILSTEIN: Reload and Implementation of a New Subject Area
NEWS	4	Apr 09	ZDB will be removed from STN
NEWS	5	Apr 19	US Patent Applications available in IFICDB, IFIPAT, and
IFIUDB			
NEWS	6	Apr 22	Records from IP.com available in CAPLUS, HCAPLUS, and
ZCAPLUS			
NEWS	7	Apr 22	BIOSIS Gene Names now available in TOXCENTER
NEWS	8	Apr 22	Federal Research in Progress (FEDRIP) now available
NEWS	9	Jun 03	New e-mail delivery for search results now available
NEWS	10	Jun 10	MEDLINE Reload
NEWS	11	Jun 10	PCTFULL has been reloaded
NEWS	12	Jul 02	FOREGE no longer contains STANDARDS file segment
NEWS	13	Jul 22	USAN to be reloaded July 28, 2002; saved answer sets no longer valid
NEWS	14	Jul 29	Enhanced polymer searching in REGISTRY
NEWS	15	Jul 30	NETFIRST to be removed from STN
NEWS	16	Aug 08	CANCERLIT reload
NEWS	17	Aug 08	PHARMAMarketLetter(PHARMAML) - new on STN
NEWS	18	Aug 08	NTIS has been reloaded and enhanced
NEWS	19	Aug 19	Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN
NEWS	20	Aug 19	IFIPAT, IFICDB, and IFIUDB have been reloaded
NEWS	21	Aug 19	The MEDLINE file segment of TOXCENTER has been reloaded
NEWS	22	Aug 26	Sequence searching in REGISTRY enhanced
NEWS	23	Sep 03	JAPIO has been reloaded and enhanced
NEWS	24	Sep 16	Experimental properties added to the REGISTRY file
NEWS	25	Sep 16	Indexing added to some pre-1967 records in CA/CAPLUS
NEWS	26	Sep 16	CA Section Thesaurus available in CAPLUS and CA
NEWS	27	Oct 01	CASREACT Enriched with Reactions from 1907 to 1985
NEWS	28	Oct 21	EVENTLINE has been reloaded
NEWS	29	Oct 24	BEILSTEIN adds new search fields
NEWS	30	Oct 24	Nutraceuticals International (NUTRACEUT) now available on
STN			
NEWS	31	Oct 25	MEDLINE SDI run of October 8, 2002
NEWS	32	Nov 18	DKILIT has been renamed APOLLIT
NEWS	33	Nov 25	More calculated properties added to REGISTRY
NEWS	34	Dec 02	TIBKAT will be removed from STN
NEWS	35	Dec 04	CSA files on STN

NEWS 36 Dec 17 PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS 37 Dec 17 TOXCENTER enhanced with additional content
NEWS 38 Dec 17 Adis Clinical Trials Insight now available on STN
NEWS 39 Dec 30 ISMEC no longer available

NEWS EXPRESS December 31 CURRENT WINDOWS VERSION IS V6.01a,
CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),
AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002
NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS INTER General Internet Information
NEWS LOGIN Welcome Banner and News Items
NEWS PHONE Direct Dial and Telecommunication Network Access to STN
NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 08:55:03 ON 02 JAN 2003

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:sssptal623paz

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * Welcome to STN International * * * * *

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America
NEWS 2 Apr 08 "Ask CAS" for self-help around the clock
NEWS 3 Apr 09 BEILSTEIN: Reload and Implementation of a New Subject Area
NEWS 4 Apr 09 ZDB will be removed from STN
NEWS 5 Apr 19 US Patent Applications available in IFICDB, IFIPAT, and
IFIUDB
NEWS 6 Apr 22 Records from IP.com available in CAPLUS, HCAPLUS, and
ZCAPLUS
NEWS 7 Apr 22 BIOSIS Gene Names now available in TOXCENTER
NEWS 8 Apr 22 Federal Research in Progress (FEDRIP) now available
NEWS 9 Jun 03 New e-mail delivery for search results now available
NEWS 10 Jun 10 MEDLINE Reload
NEWS 11 Jun 10 PCTFULL has been reloaded
NEWS 12 Jul 02 FOREGE no longer contains STANDARDS file segment
NEWS 13 Jul 22 USAN to be reloaded July 28, 2002;
saved answer sets no longer valid

NEWS 14 Jul 29 Enhanced polymer searching in REGISTRY
 NEWS 15 Jul 30 NETFIRST to be removed from STN
 NEWS 16 Aug 08 CANCERLIT reload
 NEWS 17 Aug 08 PHARMAMarketLetter(PHARMAML) - new on STN
 NEWS 18 Aug 08 NTIS has been reloaded and enhanced
 NEWS 19 Aug 19 Aquatic Toxicity Information Retrieval (AQUIRE)
 now available on STN
 NEWS 20 Aug 19 IFIPAT, IFICDB, and IFIUDB have been reloaded
 NEWS 21 Aug 19 The MEDLINE file segment of TOXCENTER has been reloaded
 NEWS 22 Aug 26 Sequence searching in REGISTRY enhanced
 NEWS 23 Sep 03 JAPIO has been reloaded and enhanced
 NEWS 24 Sep 16 Experimental properties added to the REGISTRY file
 NEWS 25 Sep 16 Indexing added to some pre-1967 records in CA/CAPLUS
 NEWS 26 Sep 16 CA Section Thesaurus available in CAPLUS and CA
 NEWS 27 Oct 01 CASREACT Enriched with Reactions from 1907 to 1985
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 NEWS 29 Oct 24 BEILSTEIN adds new search fields
 NEWS 30 Oct 24 Nutraceuticals International (NUTRACEUT) now available on
 STN
 NEWS 31 Oct 25 MEDLINE SDI run of October 8, 2002
 NEWS 32 Nov 18 DKILIT has been renamed APOLLIT
 NEWS 33 Nov 25 More calculated properties added to REGISTRY
 NEWS 34 Dec 02 TIBKAT will be removed from STN
 NEWS 35 Dec 04 CSA files on STN
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 AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002
 NEWS HOURS STN Operating Hours Plus Help Desk Availability
 NEWS INTER General Internet Information
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Enter NEWS followed by the item number or name to see news on that specific topic.

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FILE 'HOME' ENTERED AT 11:36:12 ON 02 JAN 2003

=> file reg		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 11:36:18 ON 02 JAN 2003
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 1 JAN 2003 HIGHEST RN 477930-11-3
DICTIONARY FILE UPDATES: 1 JAN 2003 HIGHEST RN 477930-11-3

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> e methyl acrylate/cn

E1	1	METHYL ACRYLAMIDOGLYCOLATE METHYL ETHER HOMOPOLYMER/CN
E2	1	METHYL ACRYLAMIDOGLYCOLATE METHYL ETHER-VINYLPYRROLIDONE
COP		OLYMER/CN
E3	1 -->	METHYL ACRYLATE/CN
E4	1	METHYL ACRYLATE COMPOUND WITH METHYL LINOLATE (1:1)/CN
E5	1	METHYL ACRYLATE DIANION/CN
E6	1	METHYL ACRYLATE DIMER/CN
E7	1	METHYL ACRYLATE HOMOPOLYMER/CN
E8	1	METHYL ACRYLATE HOMOPOLYMER DOCOSYL ESTER/CN
E9	1	METHYL ACRYLATE HOMOPOLYMER DODECYL ESTER/CN
E10	1	METHYL ACRYLATE HOMOPOLYMER EICOSYL ESTER/CN
E11	1	METHYL ACRYLATE HOMOPOLYMER ESTER WITH 1-(2-HYDROXYETHYL)
PY		RROLIDINE/CN
E12	1	METHYL ACRYLATE HOMOPOLYMER ESTER WITH
		2-(2-HYDROXYETHYL) PYR
		IDINE/CN

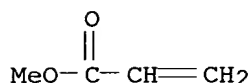
=> e3

L1 1 "METHYL ACRYLATE"/CN

=> d 11

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS
RN 96-33-3 REGISTRY
CN 2-Propenoic acid, methyl ester (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Acrylic acid methyl ester (6CI, 8CI)
OTHER NAMES:
CN 2-Propenoic acid methyl ester
CN Methoxycarbonylethylene
CN **Methyl acrylate**
CN Methyl acrylic ester
CN Methyl prop-2-enoate
CN Methyl propenoate
FS 3D CONCORD
DR 102256-29-1

MF C4 H6 O2
 CI COM
 LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DETHERM*, DIPPR*, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VTB
 (*File contains numerically searchable property data)
 Other Sources: DSL**, EINECS**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

10717 REFERENCES IN FILE CA (1962 TO DATE)
 785 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 10731 REFERENCES IN FILE CAPLUS (1962 TO DATE)
 313 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> e ethyl acrylate/cn

E1	1	ETHYL ACRYALTE-N-METHOXYMETHYLACRYLAMIDE-STYRENE-ETHYL ACRYL
		ATE-2-ETHYLHEXYL ACRYLATE-ACRYLIC ACID-2-HYDROXYETHYL METHAC
		RYLATE GRAFT COPOLYMER/CN
E2	1	ETHYL ACRYLACETATE-2-ETHYLHEXYL ACRYLATE-METHYL METHACRYLATE
		-STYRENE POLYMER/CN
E3	1 -->	ETHYL ACRYLATE/CN
E4	1	ETHYL ACRYLATE 1-PHENYL-3-METHACRYLAMIDO-5-PYRAZOLONE POLYME
		RS/CN
E5	1	ETHYL ACRYLATE COPOLYMERS/CN
E6	1	ETHYL ACRYLATE DIMER/CN
E7	1	ETHYL ACRYLATE ETHYL METHACRYLATE-N-METHYLOLACRYLAMIDE TERPO
		LYMER/CN
E8	1	ETHYL ACRYLATE HOMOPOLYMER/CN
E9	1	ETHYL ACRYLATE HOMOPOLYMER 2-(VINILOXYETHOXY)ETHYL ESTER/CN
E10	1	ETHYL ACRYLATE POLYMER/CN
E11	1	ETHYL ACRYLATE POLYMER, SYNDIOTACTIC/CN
E12	1	ETHYL ACRYLATE POLYMERS/CN

=> e3

L2 1 "ETHYL ACRYLATE"/CN

=> d 12

L2 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS
 RN 140-88-5 REGISTRY

CN 2-Propenoic acid, ethyl ester (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Acrylic acid ethyl ester (6CI, 8CI)

OTHER NAMES:

CN 2-Propenoic acid ethyl ester

CN Ethyl 2-propenoate

CN **Ethyl acrylate**

CN Ethyl acrylic ester

CN Ethyl propenoate

FS 3D CONCORD

MF C5 H8 O2

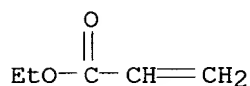
CI COM

LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DETHERM*, DIPPR*, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VTB

(*File contains numerically searchable property data)

Other Sources: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

6326 REFERENCES IN FILE CA (1962 TO DATE)

1012 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

6335 REFERENCES IN FILE CAPLUS (1962 TO DATE)

209 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> e 1-hexene/cn

E1 1 1-HEXEN-6-YL ACRYLATE/CN

E2 1 1-HEXEN-6-YL METHACRYLATE/CN

E3 1 --> 1-HEXENE/CN

E4 1 1-HEXENE COMPOUND WITH IODINE (1:1)/CN

E5 1 1-HEXENE COMPOUND WITH IODINE CHLORIDE (ICL) (1:1)/CN

E6 1 1-HEXENE DIMER/CN

E7 1 1-HEXENE EPOXIDE/CN

E8 1 1-HEXENE OXIDE/CN

E9 1 1-HEXENE OXIDE-D-LACTIDE-L-LACTIDE-PROPYLENE

GLYCOL-PYROMELL

ITIC DIANHYDRIDE COPOLYMER/CN

E10 1 1-HEXENE OXIDE-METHYL 4,5-EPOXY-PENTANOATE COPOLYMER/CN

E11 1 1-HEXENE OXIDE-METHYL 7,8-EPOXY-OCTANOATE COPOLYMER/CN

E12 1 1-HEXENE OXIDE-METHYL-10,11-EPOXY-UNDECANOATE COPOLYMER/CN

=> e3

L3 1 1-HEXENE/CN

=> d 13

L3 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS
 RN 592-41-6 REGISTRY
 CN 1-Hexene (8CI, 9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN 1-n-Hexene
 CN Dialen 6
 CN Hexene
 FS 3D CONCORD
 DR 153522-12-4, 33004-04-5
 MF C6 H12
 CI COM
 LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA,
 CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST,
 CHEMSAFE, CIN, CSCHM, CSNB, DETHERM*, DIPPR*, EMBASE, ENCOMPLIT,
 ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HODOC*, HSDB*, IFICDB,
 IFIPAT, IFIUDB, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM*, PIRA, PROMT,
 RTECS*, SPECINFO, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VTB
 (*File contains numerically searchable property data)
 Other Sources: DSL**, EINECS**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)

H₂C=CH-Bu-n

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

8846 REFERENCES IN FILE CA (1962 TO DATE)
 143 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 8857 REFERENCES IN FILE CAPLUS (1962 TO DATE)
 6 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	18.90	19.11

FILE 'CAPLUS' ENTERED AT 11:38:14 ON 02 JAN 2003
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FILE COVERS 1907 - 2 Jan 2003 VOL 138 ISS 1
 FILE LAST UPDATED: 1 Jan 2003 (20030101/ED)

This file contains CAS Registry Numbers for easy and accurate

substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=> l1

L4 10731 L1

=> l2

L5 6335 L2

=> l3

L6 8860 L3

=> l4 or l5

L7 15551 L4 OR L5

=> l6 and l7

L8 301 L6 AND L7

=> ruthenium or ru

69455 RUTHENIUM

20 RUTHENIUMS

69455 RUTHENIUM

(RUTHENIUM OR RUTHENIUMS)

54428 RU

169 RUS

54575 RU

(RU OR RUS)

L9 86538 RUTHENIUM OR RU

=> l8 and l9

L10 14 L8 AND L9

=> metathesis

10378 METATHESIS

155 METATHESES

L11 10425 METATHESIS

(METATHESIS OR METATHESES)

=> l10 and l11

MISSING OPERATOR L10 ANED

The search profile that was entered contains terms or nested terms that are not separated by a logical operator.

=> l10 and l11

L12 0 L10 AND L11

=> d l10 1-14 ti

L10 ANSWER 1 OF 14 CAPLUS COPYRIGHT 2003 ACS

TI Formation of Substituted Vinylsilanes from the **Ruthenium**
-Catalyzed Dehydrosilylation of Terminal Alkenes

L10 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2003 ACS

TI Direct Carbonylation at a C-H Bond in the Benzene Ring of
2-Phenyloxazolines Catalyzed by Ru₃(CO)₁₂. Scope, Limitations and

Mechanistic Aspects

- L10 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2003 ACS
 TI Ru₃(CO)₁₂- and Rh₄(CO)₁₂-Catalyzed Reactions of Pyridyl Olefins or N-(2-Pyridyl)enamines with CO and Olefins. Carbonylation at Olefinic C-H Bonds
- L10 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2003 ACS
 TI Catalytic addition of aromatic carbon-hydrogen bonds to olefins with the aid of **ruthenium** complexes
- L10 ANSWER 5 OF 14 CAPLUS COPYRIGHT 2003 ACS
 TI Novel perfluoroalkylation of alkenes with perfluoroalkanesulfonyl chlorides catalyzed by a **ruthenium**(II) complex
- L10 ANSWER 6 OF 14 CAPLUS COPYRIGHT 2003 ACS
 TI Formaldehyde and formates as sources of synthesis gas via **ruthenium**-catalyzed decomposition reactions
- L10 ANSWER 7 OF 14 CAPLUS COPYRIGHT 2003 ACS
 TI Reaction of terminal olefins with a hydrosilane and with carbon monoxide catalyzed by complexes of cobalt, **ruthenium**, and rhodium
- L10 ANSWER 8 OF 14 CAPLUS COPYRIGHT 2003 ACS
 TI Polymeric cofactors which accelerate homogeneous rhodium(I) and **ruthenium**(II) catalyzed hydrogenations of alkenes
- L10 ANSWER 9 OF 14 CAPLUS COPYRIGHT 2003 ACS
 TI Single-operation synthesis of vinylsilanes from alkenes and hydrosilanes with the aid of Ru₃(CO)₁₂
- L10 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2003 ACS
 TI [RuH(1-6-.eta.-C₈H₁₀)(1',2';5',6'-.eta.-C₈H₁₂)]BF₄, the first isolated hydridometal complex stabilized only by alicyclic hydrocarbon ligands and a very efficient catalyst precursor for the transformation of alkenes
- L10 ANSWER 11 OF 14 CAPLUS COPYRIGHT 2003 ACS
 TI Addition of sulfonyl chlorides to olefins in the presence of catalytic amounts of dichlorotris(triphenylphosphine)**ruthenium**(II)
- L10 ANSWER 12 OF 14 CAPLUS COPYRIGHT 2003 ACS
 TI Functional organic dichlorosilanes
- L10 ANSWER 13 OF 14 CAPLUS COPYRIGHT 2003 ACS
 TI **Ruthenium** phosphine complexes as catalysts for the hydrosilylation of the carbon-carbon double bond
- L10 ANSWER 14 OF 14 CAPLUS COPYRIGHT 2003 ACS
 TI Turnover numbers in homogeneous catalytic hydrogenation with hydridochlorotris(triphenylphosphine)**ruthenium**

=> logoff hold

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

11.10

30.21

SESSION WILL BE HELD FOR 60 MINUTES

STN INTERNATIONAL SESSION SUSPENDED AT 11:40:40 ON 02 JAN 2003